

Department of the Army
Pamphlet 200–1

Environmental Quality

Environmental Protection and Enhancement

Headquarters
Department of the Army
Washington, DC
17 January 2002

UNCLASSIFIED

Report Documentation Page

| | | |
|--|---------------------------|--|
| Report Date 17 Jan 2002 | Report Type N/A | Dates Covered (from... to) - |
| Title and Subtitle Environmental Quality: Environmental Protection and Enhancement | | Contract Number |
| | | Grant Number |
| | | Program Element Number |
| Author(s) | | Project Number |
| | | Task Number |
| | | Work Unit Number |
| Performing Organization Name(s) and Address(es) Department of the Army Headquarters Washington, DC | | Performing Organization Report Number |
| Sponsoring/Monitoring Agency Name(s) and Address(es) | | Sponsor/Monitor's Acronym(s) |
| | | Sponsor/Monitor's Report Number(s) |
| Distribution/Availability Statement Approved for public release, distribution unlimited | | |
| Supplementary Notes | | |
| Abstract | | |
| Subject Terms | | |
| Report Classification unclassified | | Classification of this page unclassified |
| Classification of Abstract unclassified | | Limitation of Abstract UU |
| Number of Pages 169 | | |

SUMMARY of CHANGE

DA PAM 200-1
Environmental Protection and Enhancement

This pamphlet--

- o Explains how the Army will execute the "U.S. Army Environmental Strategy into the 21st Century" (chapter 1).
- o Provides detailed guidance to support implementation of AR 200-1 to include: water resources management, oil and hazardous substances spills, hazardous materials management, hazardous and solid waste management, air pollution, environmental noise management, asbestos management, radon reduction, pollution prevention, environmental restoration, environmental quality technology, automated environmental management systems, the Army environmental program in foreign countries, and other miscellaneous topics (chapters 2 through 15).
- o Replaces Deputy Assistant Secretary of the Army (Environmental, Safety, and Occupational Health) Memorandum, 1 November 1993, Subject: Application of the Resource Conservation and Recovery Act Hazardous Waste Management Requirements to Conventional Explosive Ordnance Operations-Interim Policy and Guidance.
- o Replaces Office of the Director, Environmental Programs Memorandum, 29 September 1999, Subject: Change in Environmental Compliance Assessment Reporting Policy.
- o Replaces Office of the Director, Environmental Programs Memorandum, 18 September 2000, Subject: Reporting Enforcement Actions and Fines.

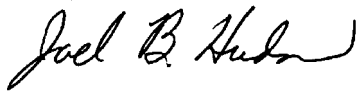
Environmental Quality

Environmental Protection and Enhancement

By Order of the Secretary of the Army:

ERIC K. SHINSEKI
General, United States Army
Chief of Staff

Official:



JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army

History. This printing publishes a revised Department of the Army pamphlet.

Summary. This pamphlet explains detailed procedures and methodology to be followed in preserving, protecting, and restoring environmental quality in accordance with AR 200-1.

Applicability. This pamphlet applies to the Active Army, the Army National

Guard (ARNG), the U.S. Army Reserve (USAR), and civil works activities that are under the jurisdiction of the U.S. Army Corps of Engineers. It also applies to tenants, such as other Federal agencies, contractor activities, and lessees performing activities in direct support of the Army located in real property under Department of the Army jurisdiction. Installations in foreign countries must comply with this pamphlet as noted in chapter 14. Contracts to operate government-owned facilities will reference this pamphlet and designate by specific citation the applicable provisions of this pamphlet.

Proponent and exception authority.

The proponent for this pamphlet is the Assistant Chief of Staff for Installation Management (ACSIM). The proponent has the authority to approve exceptions to this pamphlet that are consistent with controlling law or regulation. The ACSIM may delegate the approval authority, in writing, to a director or division chief

under their supervision within the proponent agency who holds the grade of colonel or civilian equivalent.

Suggested Improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: HQDA, DAIM-ED, 600 Army Pentagon, Washington, DC 20310-0600. DA Form 2028 may be found at <http://www.usapa.army.mil/forms>.

Distribution. Distribution of this publication is available in electronic media only and is intended for command levels C, D, and E for the Active Army, the Army National Guard (ARNG), and the U.S. Army Reserve (USAR).

Contents (Listed by paragraph and page number)

Chapter 1

Introduction, page 1

Purpose • 1-1, page 1

References • 1-2, page 1

Explanation of abbreviations and terms • 1-3, page 1

Functions • 1-4, page 1

Chapter 2

Water Resources Management Program, page 1

Scope • 2-1, page 1

Drinking water • 2-2, page 1

The Clean Water Act • 2-3, page 4

Water resource protection, management, and recreation • 2-4, page 6

Certification and training • 2-5, page 6

Management of water/wastewater system connections • 2-6, page 6

Regulatory inspections, investigation of complaints, and notification and reporting • 2-7, page 7

Technical assistance • 2-8, page 7

*This pamphlet supersedes DA Pam 200-1, April 1975.

Contents—Continued

Chapter 3

Oil and Hazardous Substances Spills, *page 11*

Scope • 3-1, *page 11*

Reporting an oil or hazardous substance spill • 3-2, *page 11*

Spill Prevention, Control, and Countermeasures Plan • 3-3, *page 11*

Facility Response Plan • 3-4, *page 12*

Radiological spills and contingencies • 3-5, *page 13*

Technical assistance • 3-6, *page 14*

Chapter 4

Hazardous Materials Management, *page 17*

Scope • 4-1, *page 17*

Installation Hazardous Material Management Program • 4-2, *page 17*

Storage and disposal of non-Defense toxic and hazardous materials • 4-3, *page 18*

Polychlorinated biphenyl management • 4-4, *page 18*

Storage tank systems • 4-5, *page 19*

Lead hazard management • 4-6, *page 22*

Hazardous material technical assistance • 4-7, *page 23*

Emergency Planning and Community Right-to-Know Act • 4-8, *page 23*

EPCRA technical assistance • 4-9, *page 24*

Chapter 5

Hazardous and Solid Waste Management, *page 24*

Scope • 5-1, *page 24*

Hazardous waste management • 5-2, *page 24*

Waste minimization • 5-3, *page 27*

Military munitions • 5-4, *page 27*

Chemical warfare agents • 5-5, *page 28*

Pesticides • 5-6, *page 28*

Medical, dental, and veterinary supplies and health care facilities • 5-7, *page 28*

Resource Conservation and Recovery Act and the National Environmental Policy Act • 5-8, *page 28*

Solid waste management • 5-9, *page 28*

Funding Army solid waste and HW disposal • 5-10, *page 30*

Resource Conservation and Recovery Act compliance • 5-11, *page 30*

Low-level and mixed radioactive waste • 5-12, *page 31*

Chapter 6

Air Program, *page 32*

Scope • 6-1, *page 32*

Air pollution emissions inventory • 6-2, *page 32*

Construction permits • 6-3, *page 32*

Operating permits (Federal) • 6-4, *page 33*

Operating permits (state) • 6-5, *page 33*

Certification and training • 6-6, *page 33*

Hazardous air pollutants • 6-7, *page 34*

Open burning and open detonation • 6-8, *page 34*

Air pollution emergency plans • 6-9, *page 35*

Vehicle Inspection and Maintenance Programs • 6-10, *page 35*

Ozone depleting substances • 6-11, *page 35*

Trip reduction plans • 6-12, *page 36*

Conformity • 6-13, *page 36*

Technical assistance • 6-14, *page 36*

Contents—Continued

Chapter 7

Environmental Noise Management Program, page 36

Scope • 7-1, *page 36*

Policy • 7-2, *page 36*

Land use planning • 7-3, *page 37*

Complaint management • 7-4, *page 37*

Noise assessment • 7-5, *page 38*

Technical assistance • 7-6, *page 39*

Chapter 8

Asbestos Management, page 43

Scope • 8-1, *page 43*

Technical assistance • 8-2, *page 43*

Chapter 9

Radon Reduction Program, page 43

Scope • 9-1, *page 43*

Army Radon Reduction Program • 9-2, *page 43*

Guidance • 9-3, *page 43*

Technical assistance • 9-4, *page 44*

Chapter 10

Pollution Prevention, page 44

Scope • 10-1, *page 44*

Pollution Prevention Program • 10-2, *page 44*

P2 Plan • 10-3, *page 46*

P2 in planning and decisionmaking • 10-4, *page 47*

Other program requirements • 10-5, *page 47*

Technical assistance • 10-6, *page 48*

Chapter 11

Environmental Restoration Programs, page 48

Scope • 11-1, *page 48*

Defense Environmental Restoration Program • 11-2, *page 48*

Comprehensive Environmental Response, Compensation, and Liability Act application to installation/facilities or Formerly Used Defense Sites restoration programs • 11-3, *page 49*

Resource Conservation and Recovery Act application to installation/facilities or Formerly Used Defense Sites restoration programs • 11-4, *page 50*

Installation Restoration Program • 11-5, *page 50*

BRAC Environmental Restoration Program • 11-6, *page 50*

FUDS Program • 11-7, *page 51*

Information management and data requirements • 11-8, *page 52*

Requirements identification • 11-9, *page 52*

Programming and budgeting • 11-10, *page 54*

IRP and BRAC program execution • 11-11, *page 55*

USAEC functions • 11-12, *page 56*

Staffing and approving DDs • 11-13, *page 57*

Off-site response actions • 11-14, *page 58*

Public participation and community relations • 11-15, *page 59*

Congressional relations • 11-16, *page 60*

Chapter 12

Environmental Quality Technology Program, page 61

Scope • 12-1, *page 61*

Program mission • 12-2, *page 61*

Funding • 12-3, *page 61*

Contents—Continued

Environmental quality technology requirements • 12–4, *page 61*

Program management • 12–5, *page 62*

Chapter 13

Automated Environmental Management Systems, *page 63*

Scope • 13–1, *page 63*

Environmental Program Requirements Report • 13–2, *page 63*

Environmental Quality Report and other reporting requirements • 13–3, *page 63*

Defense Environmental Network and Information Exchange • 13–4, *page 64*

Defense Site Environmental Restoration Tracking System • 13–5, *page 65*

Environmental Compliance Assessment System • 13–6, *page 66*

Installation Status Report Environment • 13–7, *page 66*

Installation Restoration Data Management Information System • 13–8, *page 67*

Chapter 14

Army Environmental Program in Foreign Countries, *page 67*

Scope • 14–1, *page 67*

Environmental compliance requirements • 14–2, *page 67*

Environmental remediation requirements • 14–3, *page 68*

Cooperation with host nation authorities • 14–4, *page 68*

Notices of violation or noncompliance issues • 14–5, *page 68*

Chapter 15

Other Environmental Programs and Requirements, *page 69*

Scope • 15–1, *page 69*

National Environmental Policy Act requirements • 15–2, *page 69*

Natural resources management • 15–3, *page 69*

Natural Resource Damage Assessment • 15–4, *page 69*

Cultural resources management • 15–5, *page 69*

Real property acquisition, outgrant, and disposal transactions • 15–6, *page 70*

Environmental agreements • 15–7, *page 74*

Environmental compliance assessments • 15–8, *page 75*

Army Environmental Awards Program • 15–9, *page 78*

Environmental Quality Control Committee • 15–10, *page 79*

Construction site selection surveys • 15–11, *page 80*

Army Environmental Training Program • 15–12, *page 81*

Installation/civil works facility/state environmental training plans • 15–13, *page 81*

Army Energy Program • 15–14, *page 83*

National security emergencies and exemptions • 15–15, *page 83*

Criminal enforcement • 15–16, *page 83*

Environmental compliance officer • 15–17, *page 85*

Integrated training area management • 15–18, *page 86*

Sampling and laboratory analysis • 15–19, *page 86*

Pest Management Program • 15–20, *page 87*

Appendixes

A. References, *page 94*

B. Points of Contact, *page 113*

C. Hazardous Waste and Defense Reutilization and Marketing Service, *page 115*

Table List

Table 2–1: Primary drinking water regulations regulated contaminants, *page 7*

Table 2–2: Secondary drinking water regulations regulated contaminants, *page 10*

Table 2–3: Unregulated Contaminant Monitoring Rule (UCMR) list, *page 10*

Contents—Continued

Table 4–1: Tank data to be maintained, *page 21*

Table 7–1: Land use planning guidelines, *page 38*

Table 7–2: Noise zone classification, *page 40*

Table 7–3: Suggested land use compatibility guidelines, *page 40*

Table 7–4: Operations generating noise contours, *page 41*

Table 9–1: Mitigation time frames from receipt of test results, *page 44*

Table 15–1: Signature approved authorities¹, *page 74*

Table 15–2: Environmental and related safety and occupational health (SOH) training regulations, *page 89*

Table 15–3: Environmental laws and national security exemptions, *page 91*

Figure List

Figure 3–1: Sample emergency notification phone list, *page 15*

Figure 3–2: Sample spill response notification information, *page 16*

Figure 15–1: Conceptual elements of site investigation and clearance, *page 88*

Glossary

Index

Chapter 1

Introduction

1-1. Purpose

This pamphlet explains how the Army will execute the “U.S. Army Environmental Strategy into the 21st Century.” It portrays environmental stewardship in all actions as part of the Army mission. This pamphlet describes, in detail, Department of the Army (DA) procedures and methodology to be followed in preserving, protecting, and restoring environmental quality in accordance with Army Regulation (AR) 200-1.

1-2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

1-3. Explanation of abbreviations and terms

Abbreviations and special terms used in this publication are explained in the glossary. Section I contains abbreviations, brevity codes, and acronyms contained in AR 310-50. Section III contains abbreviations, brevity codes, and acronyms specific to this publication.

1-4. Functions

The functions of each agency, organization, and participant involved in administering the Army’s environmental program are outlined in AR 200-1. Specific procedural requirements are described in this pamphlet.

Chapter 2

Water Resources Management Program

2-1. Scope

This chapter outlines the procedures used to meet the requirements of AR 200-1, chapter 2.

2-2. Drinking water

a. Drinking water quality at fixed facilities will conform to the Federal criteria pursuant to the Safe Drinking Water Act (SDWA), as amended, or state or local regulations when more stringent.

(1) In 40 Code of Federal Regulations (CFR) 141.151, the U.S. Environmental Protection Agency (EPA) defines a community water system (CWS) as a public water system (PWS) that serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. A PWS—

(a) Provides water through pipes to the public for human consumption or, after 5 August 1998, other constructed conveyances, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

(b) Includes any collection, treatment, storage, and distribution facility under the control of the operator of such system and used primarily in connection with such system; and any collection or pretreatment storage facility not under such control that is used primarily in connection with such system.

(c) Is either a “community water system” or a “noncommunity water system.”

(2) The SDWA regulates water primarily through primary and secondary drinking water quality standards. Army installations are responsible for keeping abreast of new Federal, state, and local water standards and requirements to keep all drinking water treatment systems and wells in compliance. Installation commanders (ICs) with fixed installation PWSs will program funding for drinking water monitoring in accordance with the Environmental Program Requirements (EPR) Guidance Document developed by Headquarters, U.S. Army (HQDA) and the U.S. Army Environmental Center (USAEC). Civil works (CW) requirements will be programmed in accordance with Corps of Engineers Civil Works Direct Program-Program Development Guidance.

(a) Primary drinking water quality standards regulate substances in drinking water that may have an adverse effect on human health. These regulations are federally enforceable. Primacy states may have more stringent requirements. Primary standards include regulations on organic, inorganic, and radiological contaminants; total coliform; control of lead and copper; and disinfection/filtration. Table 2-1, located at the end of this chapter, lists the primary drinking water quality standards (see also 40 CFR 141). Criteria are presented as maximum contaminant levels (MCLs), action levels (ALs), or treatment technique (TT) requirements.

(b) Secondary drinking water standards regulate substances that may have an objectionable impact on the aesthetic quality of drinking water. These regulations are not federally enforceable but may be enforced by the state. Table 2-2, located at the end of this chapter, lists the secondary drinking water quality standards (see also 40 CFR 143).

(c) All Army facilities that own and operate a drinking water treatment system that is classified by the state as a community water treatment system are required by the 1996 Safe Drinking Water Act amendments to complete a

Consumer Confidence Report (CCR). Report content and distribution to customers is outlined by each state's regulations. Army facilities that purchase and treat water must acquire the CCR from the PWS where they purchase their water, add information to this CCR about the additional Army treatment, and then distribute the CCR to their customers. Installations that only purchase water must at least acquire the PWS CCR and redistribute it to Army personnel. Copies of the CCR should be sent to USAEC, ATTN: SFIM-AEC-NR, 5179 Hoadley Road, Aberdeen Proving Ground, MD 21010-5401.

(3) The SDWA requires that monitoring be performed for several unregulated contaminants in order to form a database for future regulations. Table 2-3, located at the end of this chapter, lists the unregulated substances that will be monitored.

(4) Under the Lead and Copper Rule (40 CFR 141, subpart I), the SDWA prohibits the use of drinking water conveyance materials with a lead content above a set standard. The lead prohibition requires the use of lead-free solder, flux, pipes, and fittings in drinking water systems. Lead-free is defined as a maximum lead content of 0.2 percent for solder and flux and 8.0 percent for pipes and fittings.

(5) The Lead Contamination Control Act (LCCA) is a 1988 amendment to the SDWA. LCCA mandated that several programs be developed to reduce children's exposure to lead in drinking water at school. The act also required the EPA to produce a list of all the drinking water coolers that were not lead-free.

(6) The Surface Water Treatment Rule (SWTR) (40 CFR subpart H) establishes maximum contaminant level goals (MCLGs) for viruses, bacteria, and *Giardia lamblia* and also includes TT requirements for filtered and unfiltered systems that are specifically designed to protect against the adverse health effects of exposure to these microbial pathogens. The SWTR applies to all PWSs using surface water sources or ground water sources under the direct influence of surface water (GWUDI).

(7) The Interim Enhanced Surface Water Treatment Rule (IESWTR) was codified in 2000 (40 CFR 141).

(a) The IESWTR applies to systems using surface water or GWUDI that serve 10,000 or more persons.

(b) The rule builds on the SWTR by strengthening microbial protection, including provisions specifically to address *Cryptosporidium*, and by addressing risk trade-offs with disinfection by-products. It optimizes treatment reliability and enhances physical removal efficiencies to minimize the *Cryptosporidium* levels in finished water.

(c) The rule also requires disinfection profiling and benchmarking provisions to assure continued levels of microbial protection while complying with new disinfectants and disinfection by-products (DBP) standards.

(d) In addition, states are required to conduct sanitary surveys for all surface water systems, regardless of size.

(e) PWSs that use surface water or ground water under the direct influence of surface water, either in whole or in part, and serve a population of 10,000 or more generally have 3 years from Federal promulgation to comply with requirements of this rule. The exceptions are for disinfection profiling and benchmarking, which require systems to begin sampling after 3 months. In cases where capital improvements are needed to comply with the rule, states may grant systems up to an additional 2 years to comply.

(8) The Stage 1 DBP Rule was codified in 2000 (40 CFR 141).

(a) The Stage 1 DBP Rule applies to all CWS and nontransient noncommunity water systems (NTNCWS) that add a chemical disinfectant to the drinking water during any part of the treatment process.

(b) The Stage 1 DBP Rule updates and supersedes the 1979 regulations for total trihalomethanes.

(c) It establishes maximum residual disinfectant level goals (MRDLGs) and maximum residual disinfectant levels (MRDLs) for three chemical disinfectants: chlorine, chloramine, and chlorine dioxide (see table 2-1 at the end of this chapter).

(d) The Stage 1 DBP Rule also establishes MCLGs and MCLs for total trihalomethanes, haloacetic acids, chlorite, and bromate.

(e) Large surface water systems are required to comply with the Stage 1 DBP Rule by January 2002. Ground water systems and small surface water systems are required to comply with the Stage 1 DBP Rule by January 2004.

(9) The proposed Long Term 1 Enhanced SWTR will strengthen microbial controls for small systems serving fewer than 10,000 people. This rule will also prevent significant increases in microbial risk where small systems take steps to implement the Stage 1 DBP Rule. It will also establish filter backwash requirements for certain PWSs of all sizes to reduce the potential risks associated with recycling contaminants removed during the filtration process.

(10) The EPA is developing a Ground Water Rule (GWR) that specifies the appropriate use of disinfection while addressing other components of ground water systems to ensure public health protection. The GWR establishes multiple barriers to protect against bacteria and viruses in drinking water from ground water sources and will establish a targeted strategy to identify ground water systems at high risk for fecal contamination.

b. Drinking water provided at fixed installations will meet all applicable state and local drinking water regulations. Typical state drinking water programs and standards include the following:

(1) Criteria to maintain and operate distribution systems to protect the quality of drinking water after it leaves the treatment plant. These criteria include the following:

(a) Maintenance of adequate disinfectant residuals.

(b) Effective main flushing program.

- (c) Proper disinfection/repair of mains.
 - (d) Protection of stored water quality.
 - (e) Maintenance of adequate pressures.
- (2) The development and implementation of plans to protect and conserve sources of drinking water and plans to protect distributed drinking water quality. The SDWA established three ground water protection programs to be implemented at the state level. State programs/plans include the following:
- (a) The Underground Injection Control (UIC) Program (40 CFR 144-148) prohibits the injection of almost all unpermitted underground injections and requires permitted injections be monitored to determine their effects on nearby ground water. Permits and exact monitoring requirements are usually obtained from the state.
 - (b) The Sole Source Aquifer (SSA) Protection Program (SDWA, section 1424(e)) protects those aquifers that have been demonstrated to be the sole or principal source of drinking water in an area. States with such aquifers regulate the activities within the recharge areas of the aquifer and use restrictions to conserve the resource.
 - (c) The Wellhead Protection (WHP) Program (SDWA, section 1428) requires systems using ground water wells to establish a WHP plan for each well. The plan requires the following:
 - 1. The delineation of the WHP area (a recharge zone based upon a set radius or time of ground water travel).
 - 2. An inventory of potential sources of contamination within the area.
 - 3. Development of a management plan to control or remove these contamination sources and regulate activities within the area that may impact ground water quality.
 - 4. Establishment of a contingency plan to provide an alternate source of drinking water in the event that the well becomes contaminated.
 - (d) Sanitary surveys of public community and noncommunity water systems should be conducted as required by 40 CFR 141 in consideration with other requirements provided in AR 200-1, AR 40-5, and Technical Bulletin, Medical (TB MED) 576. The CFR defines the sanitary survey as an on-site review and evaluation of the water source, facilities, equipment, operation, and maintenance of a PWS for the purpose of producing and distributing safe drinking water. As mandated by the CFR, EPA requires that sanitary surveys must be performed by the state on an agent approved by the state and that the survey records be kept for a period of time of not less than 10 years. The installation commander (IC) is responsible for ensuring that the survey takes place.
 - (e) Cross-connection control plans regulate those areas in the distribution system where potable water may come in contact with nonpotable water or substances. A properly prepared cross-connection control plan lists the existing and potential cross-connections within a system and assigns the proper backflow prevention device to the area. Cross-connection and back-flow protection are mandatory under the SDWA and civil penalties apply to violations. The plan should also include a schedule for testing these devices to ensure proper operation. Mil-HDBK-1164 contains specific guidance and recommended time intervals for inspecting and testing backflow prevention devices.
 - (f) A potable water supply emergency/contingency plan ensures proper procedures are in place that will be followed during national or local emergencies (for example, natural disasters, subnormal service, droughts, main breaks, fires, enemy attacks, mobilization). This plan will include restrictions on consumption, measures for addressing alternative/additional sources that are available for potable water supply, recycling and reuse, and inclusion of any hazardous substance contingency plans as required by applicable laws and regulations. (See para 2-4 for additional information.)
 - (g) Water conservation plans include implementation of water-saving measures to reduce costs and conserve drinking water sources. Measures detailed in the installation plan should include, but not be limited to, installation low-flow plumbing fixtures, treatment and recycling of boiler/cooling water, reuse of treated waters into landscape sprinkler systems, limited contractor use of water hydrants, etc. This plan could be combined with installation contingency plans for surface and well sources (see WHP at paragraph (c) above) and titled as the Installation Water Conservation and Emergency/Contingency Plan. CW district/laboratory/field operating activity (FOA) commanders will develop criteria for identifying civil works facilities (CWFs) that require water supply emergency/contingency plans and/or water conservation plans, and provide formats for any plans.
 - (h) The SDWA Amendments of 1996 required states to develop Source Water Assessment and Protection (SWAP) Programs by January 1999. A SWAP Program includes a strategic approach to conducting the assessments; delineates the area of influence from which a contaminant may enter a PWS; inventories sources of potential or unknown contaminants within the delineated zone; and determines the susceptibility of a PWS to such contaminants. Since some states with constrained budgets may require that individual PWSs conduct their own assessments and, if susceptible to contaminants, develop a Source Water Protection Plan and Program, the USAEC has developed a model SWAP Program for installation use. This guide will provide major Army commands (MACOMs) and installations with useful information for developing a site-specific SWAP Program. This guide is available on the USAEC Web site (<http://www.aec.army.mil>).
- c. Water conservation measures must be implemented in accordance with the Energy Policy Act of 1992, subpart F of PL 102-486. This act requires all Federal agencies to install water conservation measures in Federal buildings to the maximum extent possible by 1 January 2005, with payback periods of less than 10 years. Executive Order (EO) 12902 requires Federal agencies to survey their facilities and identify potential energy or water conservation measures.

d. Drinking water provided for the field environment and other military unique operations will meet the Army Surgeon General's directives. Field water standards for military activities are presented in TB MED 577.

e. Potential environmental considerations are associated with the treatment of raw water for drinking water purposes. These considerations include the effects of brine and sludge discharged from water treatment systems and water draw-off restrictions from surface or ground water sources. National Pollutant Discharge Elimination System (NPDES) permits, water appropriation and use permits, or other permits may be required to operate drinking water treatment systems at both fixed and field facilities.

2-3. The Clean Water Act

a. *The Clean Water Act (CWA) objective.* The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of U.S. waters. Installation environmental and engineering offices and appropriate CW districts and facilities outside the district structure will develop and implement a wastewater management program that includes the following:

- (1) NPDES permits.
- (2) Pretreatment standards for discharges to publicly-owned treatment works (POTWs).
- (3) Toxic water pollutants.
- (4) Sewage sludge management guidance.
- (5) Storm water management.
- (6) Non-point source pollution control.
- (7) Dredge and fill operations.
- (8) Innovative/alternative TTs.

b. *NPDES permit guidance.* NPDES permits are required for all point source wastewater discharges into U.S. waters. Draft NPDES permits should be reviewed through technical as well as legal channels to ensure that the activity can comply with all the provisions of the permit. If additional time is needed to adequately review the draft NPDES permit, an extension to the review period should be requested from the issuing authority. Technical assistance may be obtained from the agencies listed in paragraph 2-8. ICs with "NPDES permitted" fixed installation wastewater systems will program funding for wastewater sampling in accordance with the EPR guidance document developed by HQDA and the USAEC. CW requirements will be programmed in accordance with Corps of Engineers Civil Works Direct Program-Program Development Guidance.

c. *Pretreatment program.* General pretreatment standards are applicable to all the nondomestic discharges to POTWs or Federally-owned treatment works (FOTW) facilities. All discharges to POTWs are regulated by general pretreatment standards and, in many cases, local sewer use ordinances. FOTWs may set pretreatment requirements to ensure compliance with their NPDES permit. Regulatory agencies may implement further limitations or pretreatment standards for internal discharges. Army pretreatment programs for all wastewater treatment systems must consider the following:

(1) Pretreatment guidelines for the discharges of all noncategorical, nondomestic users and categorical users for which no pretreatment standards exist.

(2) A means to ensure that any categorical industrial operation will meet the pretreatment requirements of that particular categorical industry.

(3) A procedure to control the discharge of hazardous substances or new industrial wastewater sources into the collection system. Such discharges require an evaluation of the water quality of the discharge and the treatment system's ability to handle the discharge.

(4) The prohibition on discharging pollutants into a wastewater collection system that may interfere with any treatment process and pass through the treatment facility, thereby constituting a health hazard or polluting the waters of the nation, or contaminating the sludge so as to restrict the disposal options of the treatment facility. The activity will develop a procedure to ensure that the following types of pollutants are not introduced into the wastewater collection system:

- (a) Pollutants that create a fire or explosion hazard at the treatment facility or in the collection system.
- (b) Pollutants that will cause corrosive structural damage to the treatment facility or the collection system (unless the facility and system are designed to handle such discharges).
- (c) Solid or viscous pollutants in amounts that will obstruct the flow of the treatment facility or collection system.
- (d) Pollutants that are released at a flow rate or concentration that will interfere with the treatment facility operations.
- (e) Heated discharge in amounts that will inhibit biological activity in the treatment facility, resulting in interference. In no case will the discharge cause the temperature to exceed 104 degrees Fahrenheit at the treatment facility.
- (f) Pollutants that result in the presence of toxic gases within the treatment facility in a quantity that may cause worker health and safety problems.
- (g) Petroleum oil, nonbiodegradable cutting oil, grease/animal fats, or products of mineral oil origin in amounts that will cause interference with the treatment process or pass through the treatment facility resulting in health hazards, pollution of outflow waters, or contamination of treatment sludge.

d. *Industrial wastewater treatment system (IWTs)*. IWTs are regulated under the CWA when they are required to have an NPDES permit to allow the system to discharge effluent to a receiving water (for example, an industrial wastewater treatment plant that discharges to a stream). When the IWT discharges to a POTW/FOTW, it is considered a pretreatment facility and the discharge is regulated under pretreatment rules associated with the POTW/FOTW permit. Operation of an NPDES-permitted IWT by Army installations will follow paragraphs 2-3c(4)(a-g) when implementing and following standard operating methods for that plant.

e. *Sludge*. Sludge can be produced by a variety of water and wastewater treatment systems; however, it is usually identified under one of the following categories:

(1) *Domestic wastewater sludge (sewage sludge/biosolids)*. Federal requirements for the final use and disposal of sewage sludge that is land applied, surface disposed, or incinerated are contained in 40 CFR 503. Many states have additional requirements for the use and disposal of domestic wastewater sludge. The Army encourages the beneficial use of domestic wastewater sludge.

(2) *Combined domestic/IWTs sludge*. In some cases, this sludge may meet the requirements (based on sample analysis) under 40 CFR 503 and can be handled according to these regulations. However, under circumstances when this sludge does not meet 503 sampling requirements or analysis, it must adhere to the Resource Conservation and Recovery Act (RCRA) (42 United States Code (USC) 6901 et seq.) rules for disposal.

(3) *Drinking water treatment system sludge*. This sludge is produced through the industrial process of producing drinking water. When analyzed, this sludge may be inert or high in aluminum. It may not necessarily be classified as RCRA waste; however, in many cases it is disposed of as RCRA waste. If possible, Army installations should attempt to find a beneficial use for this sludge.

f. *Storm water*. In 1987, the CWA was amended to require implementation of a comprehensive approach for addressing storm water discharges under the NPDES program. Installations will address and apply for permits for all point source (see point source definition, 40 CFR 122.2) storm water runoff issues in accordance with 40 CFR 122.26. Those point sources specific to Army installations include the following:

(1) *Permits for industrial storm water runoff*. Under phase I of this program, Army installations/CWFs must apply for NPDES storm water permits if they have point source discharges of storm water associated with industrial activities/operations. As outlined by the CFR, Army installations/CWFs will also prepare Storm Water Pollution Prevention Plans and a schedule for implementation of measures to protect storm water runoff from contamination. General permits are typically reissued every 5 years by the permitting agency. The original Federal Multi-Sector General Permit (MSGP) was published on 25 September 1995 (60 Federal Register (FR) 50804) and reissued on 30 September 1998. For Federal facilities operating in states that do not have general permit authority or authority to permit Federal facilities, permit coverage must be sought under the MSGP issued by the EPA regions. Facilities operating in states authorized to issue general permits to Federal facilities must seek permit coverage from the state in which they reside. Army installation and CW activities will ensure that the design of new industrial facilities incorporates the provisions for proper storm water management.

(2) *Storm water permits for construction activities*. Storm water discharges from construction activities are required to have an NPDES permit as defined in 40 CFR 122.26(b)(14)(x). The permit will cover all clearing, grading, and excavation activities, except operations that result in the disturbance of less than 5 acres (some states with NPDES-permitting authority regulate sites smaller than 5 acres) of total land area that is not part of a common plan of development or sale. The most recently issued Federal storm water permits for construction were issued on 17 February 1998 (63 FR 7858). As with the MSGP discussed above, for Federal facilities operating in states that do not have general permit authority or authority to permit Federal facilities, permit coverage must be sought under the storm water construction permits issued by EPA regions. Facilities operating in states authorized to issue general permits to Federal facilities must seek permit coverage from the state in which they reside.

(3) *NPDES Storm Water Program permits*. Under the Proposed Phase II NPDES Storm Water Program, U.S. Army installations, designated as “small” municipal separate storm sewer systems (MS4) or having storm water discharges associated with “other” activities (construction sites disturbing more than 1 acre, but less than 5 acres), will be required to modify existing NPDES storm water permits or apply for a new permit. Complete requirements will be available when the final rule is promulgated.

g. *Activities in water of the U.S., including wetlands (section 404 of the CWA)*.

(1) *Proposed military or CW activities in wetlands*. A CWA permit is required for any activity that involves discharges of dredged or fill material, including excavation, into waters of the U.S., including wetlands. The adopted EPA and U.S. Army Corps of Engineers (USACE) general definition for wetlands is “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.” Permit requirements for the discharge and/or excavation of dredge or fill material are outlined under 33 CFR 320-330 and 40 CFR 230. Proposed military or CW activities in wetlands or other waters of the U.S. must coordinate with the USACE CW district having jurisdiction over the area.

(2) *Rivers and Harbors Act of 1899 (RHA) (33 USC 401)*. A section 10 RHA permit is required for any work in or affecting the course, location, condition, or capacity of any navigable water of the U.S. permit requirements in

accordance with section 10 are outlined under 33 CFR 320-330. Proposed military or CW activities for the work described above affecting navigable waters of the U.S. must be coordinated with the USACE CW district having jurisdiction over the area.

(3) *Marine Protection, Research, and Sanctuaries Act (MPRSA)*. A section 103 MPRSA permit is required for the transportation of dredged material for disposal in the ocean. Disposal sites for such discharges are selected in accordance with criteria developed by the EPA in consultation with the Secretary of the Army. Permit requirements in accordance with section 103 are outlined under 33 CFR 320-330. Proposed military or CW activities for the transportation of dredged material for disposal in the ocean must be coordinated with the USACE CW district having jurisdiction over the area.

h. Effluent limitations from watercraft. Guidelines and regulations are described in AR 200-1, paragraph 2-4i.

i. Innovative/alternative treatment. The CWA requires the application of innovative and alternative techniques and processes in new and upgraded wastewater treatment facilities, if possible. Each military construction programming document, including the DD Form 1391, should reflect that innovative or alternative technology was considered. Paragraph 11 of the form should address the economic analysis associated with innovative and alternative technology. CW activities will document the innovative or alternative technology considerations in the appropriate design memoranda.

j. Field wastewater disposal. Procedures for Army training units or other Army activities for disposing of field waste is outlined in Field Manual 21-10, U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) Water Quality Information Paper #32-024, and Environmental Engineering and Sanitation, 4th Edition.

2-4. Water resource protection, management, and recreation

a. Installations must conserve and protect all water sources from contamination through the development and implementation of plans to ensure a level of water quality that supports “the propagation of fish, shellfish, and wildlife; recreation in and on the water; and protection of drinking water sources” (CWA section 101(a)(2)). This is accomplished through a total water quality management approach, also referred to as a Water Resource Management Program or Plan (WRMP). The approach or program integrates plans to provide a holistic view of the installation’s water sources and how to manage them. This approach promotes development of pollution prevention (P2) methods and watershed protection management plans; promotes coordination with natural resource managers, facility planners, facility and operation personnel, fire and safety managers, and engineering staff; and reduces compliance violations. The CWA, SDWA, and Oil Pollution Act (OPA) outline and provide for the development of plans to protect these water sources. These plans include storm water plans, wetland plans and inventories, WHP plans, pretreatment plans, facility response/spill prevention plans, watershed pollution prevention plans for drinking water surface impoundments and permits, water conservation/emergency/contingency plans, and SWAP plans.

b. Installations are encouraged to form partnerships with other Federal, state, local, and nonprofit agencies to promote responsible resource management, cooperative efforts, and community relations; promote participation in regional conservation efforts; and streamline compliance requirements. Additional information on partnership development for wetlands and water sources can be found in AR 200-3, paragraph 29.

c. Maintenance and management of fixed installation water recreational facilities (for example, swimming pools) will be coordinated by facility operations, preventive medicine, and the environmental office and in accordance with AR 40-5, TB MED 575, and Technical Manual (TM) 5-662.

2-5. Certification and training

a. Operators of water, wastewater, and industrial treatment plants will receive the necessary training and meet the operator certification requirements of the state in which they are located. Operators will meet the minimum water system operator certification requirements that satisfy standards set by EPA and all applicable state and local agencies. The operator certification requirements apply to the operators of community and NTNCWS. Outside the continental United States (OCONUS), operators will meet training requirements established in the relevant Final Governing Standards (FGS) or the Overseas Environmental Baseline Guidance Document (OEBGD), whichever applies.

b. Job descriptions for treatment plant operator positions will require a state certification or license or the ability to obtain and maintain a license or certification per applicable regulations.

c. Announcements of vacancies for these positions will state the certification requirements.

d. Operator training will be met through programs sponsored by the state or regional health department or the local university or college of the state in which the facility is located.

e. In the absence of programs listed in paragraph d above, training will be held at qualified institutions designated by the respective MACOM.

2-6. Management of water/wastewater system connections

Installations will use the following regulations and manuals to develop on-site procedures for managing connections to water/wastewater treatment systems: AR 40-5, AR 420-49, TB MED 576, TB MED 577, Mil-HDBK-1164, Mil-HDBK 1138, TM 5-813 Series, TM 5-814 Series, 29 CFR 1910, 40 CFR 141 and 141.33 (c), 40 CFR 141.84, and applicable

state regulations for water and wastewater. Installations that are connected to municipal or private drinking water plants or POTWs will be required to meet standards or procedures outlined by the municipal/private plant management. In cases where there are installation industrial activity discharges to a POTW, installations will be required to meet pretreatment requirements outlined by that POTW.

2-7. Regulatory inspections, investigation of complaints, and notification and reporting

a. CWA. Installations/CWFs will follow procedures that are identified in 40 CFR 122 and 40 CFR 124 for CWA issues. One example of the comment process under the CWA occurs when an NPDES permit application is submitted to regulatory agencies for renewal of an existing permit or for requesting a new permit. After the application is submitted, a review period is opened so that other agencies and the public can comment to the regulators on the permit.

b. SDWA. Procedures for drinking water reporting, public notification, and recordkeeping are outlined in 40 CFR 141, subpart D, and state regulations. Additional information can be obtained in Technical Guide (TG) 179, which is available from USACHPPM.

2-8. Technical assistance

Technical assistance on water treatment and conservation and wastewater disposal procedures may be obtained from the sources below. Civil works facility (CWF) managers should consult their environmental compliance coordinator network for sources of technical assistance. (See appendix B for mailing addresses and Web sites.)

a. USAEC, Compliance.

b. USACHPPM, Water Supply Management.

c. USACE Hazardous, Toxic, and Radioactive Waste (HTRW) Center of Expertise.

d. EPA SDWA Hotline, 1-800-426-4791.

Table 2-1
Primary drinking water regulations regulated contaminants

| Contaminant | Maximum contaminant level (MCL) (mg/l unless noted) | Monitoring frequency ^a | |
|-----------------------------------|---|-----------------------------------|--------------------|
| | | Surface water | Ground water |
| INORGANICS | | | |
| Antimony | 0.006 | 1 yr | 3 yr |
| Arsenic | 0.05 | 1 yr | 3 yr |
| Asbestos | 7 MF ^b | 9 yr | 9 yr |
| (Possible monitoring waiver) | | | |
| Barium | 2 | 1 yr | 3 yr |
| Beryllium | 0.004 | 1 yr | 3 yr |
| Cadmium | 0.005 | 1 yr | 3 yr |
| Chromium | 0.1 | 1 yr | 3 yr |
| Copper | 1.3 AL ^c | Semiannual | Semiannual |
| Corrosivity ^d | -- | Semiannual | 1 yr |
| Cyanide | 0.2 | 1 yr | 3 yr |
| Lead | 0.015 AL ^c | Semiannual | Semiannual |
| Fluoride | 4 | 1 yr | 3 yr |
| Mercury | 0.002 | 1 yr | 3 yr |
| Nickel ^e | -- | 1 yr | 3 yr |
| Nitrate (as N) | 10 | Qtrly | 1 yr |
| Nitrite (as N) | 1 | Once ^f | Once ^f |
| Nitrate and Nitrite, Total (as N) | 10 | Qtrly | 1 yr |
| Selenium | 0.05 | 1 yr | 3 yr |
| Sodium ^d | -- | 1 yr | 3 yr |
| Thallium | 0.002 | 1 yr | 3 yr |
| VOLATILE ORGANICS | | | |
| Benzene | 0.005 | Qtrly ^g | Qtrly ^g |
| Carbon tetrachloride | 0.005 | Qtrly ^g | Qtrly ^g |
| o-Dichlorobenzene | 0.6 | Qtrly ^g | Qtrly ^g |
| p-Dichlorobenzene | 0.075 | Qtrly ^g | Qtrly ^g |
| 1,2-Dichloroethane | 0.005 | Qtrly ^g | Qtrly ^g |
| 1,1-Dichloroethylene | 0.007 | Qtrly ^g | Qtrly ^g |
| cis-1,2-Dichloroethylene | 0.07 | Qtrly ^g | Qtrly ^g |
| trans-1,2-Dichloroethylene | 0.1 | Qtrly ^g | Qtrly ^g |
| Dichloromethane | 0.005 | Qtrly ^g | Qtrly ^g |
| 1,2-Dichloropropane | 0.005 | Qtrly ^g | Qtrly ^g |
| Ethylbenzene | 0.7 | Qtrly ^g | Qtrly ^g |
| Monochlorobenzene | 0.1 | Qtrly ^g | Qtrly ^g |

Table 2-1
Primary drinking water regulations regulated contaminants—Continued

| Contaminant | Maximum contaminant level (MCL) (mg/l unless noted) | Monitoring frequency ^a | |
|---|---|-----------------------------------|---------------------------|
| | | Surface water | Ground water |
| Styrene | 0.1 | Qrtly ^g | Qrtly ^g |
| Tetrachloroethylene | 0.005 | Qrtly ^g | Qrtly ^g |
| 1,2,4-Trichlorobenzene | 0.07 | Qrtly ^g | Qrtly ^g |
| Toluene | 1 | Qrtly ^g | Qrtly ^g |
| 1,1,1-Trichloroethane | 0.2 | Qrtly ^g | Qrtly ^g |
| 1,1,2-Trichloroethane | 0.005 | Qrtly ^g | Qrtly ^g |
| Trichloroethylene | 0.005 | Qrtly ^g | Qrtly ^g |
| Vinyl chloride | 0.002 | Qrtly ^g | Qrtly ^g |
| Xylenes, total | 10 | Qrtly ^g | Qrtly ^g |
| HERBICIDES/PESTICIDES/OTHERS | | | |
| Acrylamide | TT ^h | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Alachlor | 0.002 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Atrazine | 0.003 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Benzo(a)pyrene | 0.0002 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Carbofuran | 0.04 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Chlordane | 0.002 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Dalapon | 0.2 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| 1,2-Dibromo-3-chloropropane | 0.0002 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Di(2-ethylhexyl)adipate | 0.4 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Di(2-ethylhexyl)phthalate | 0.006 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Dinoseb | 0.007 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Diquat | 0.02 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| 2,4-D | 0.07 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Endothall | 0.1 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Endrin | 0.002 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Epichlorohydrin | TT ^h | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Ethylene dibromide | 0.00005 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Glyphosate | 0.7 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Heptachlor | 0.0004 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Heptachlor epoxide | 0.0002 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Hexachlorobenzene | 0.001 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Hexachlorocyclopentadiene | 0.05 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Lindane | 0.0002 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Methoxychlor | 0.04 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Oxamyl (Vydate) | 0.2 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Pentachlorophenol | 0.001 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| PCBs (as decachlorobiphenyl) | 0.0005 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Picloram | 0.5 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Simazine | 0.004 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| Toxaphene | 0.003 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| 2,3,7,8-TCDD (Dioxin) | 3 x 10 ⁻⁸ | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| 2,4,5-TP (Silvex) | 0.05 | 4 qtrs/3 yrs ⁱ | 4 qtrs/3 yrs ⁱ |
| TRIHALOMETHANES ^j | 0.10 (0.080 ^k) | | |
| DISINFECTION BY-PRODUCTS AND PRECURSORS^l | | | |
| Total organic carbon and alkalinity ^m | NA | Monthly | NA |
| HAA5 ⁿ | 0.060 | Qtrly | Qtrly |
| Chlorite ^o | 1 | Daily | Daily |
| Bromate ^p | 0.010 | Monthly | Monthly |
| DISINFECTANT RESIDUALS^l | | | |
| Chlorine | 4 | Monthly ^q | Monthly ^q |
| Chloramine | 4 | Monthly ^q | Monthly ^q |
| Chlorine dioxide ^o | 0.8 | Daily | Daily |
| RADIOCHEMICALS - Monitoring in the distribution system for community water systems only. | | | |
| Gross alpha ^r | 15 pCi/L | 4 yr | 4 yr |
| Gross beta ^s | 50 pCi/L | 4 yr | 4 yr |
| Radium-226 and 228 | 5 pCi/L ^t | 4 yr | 4 yr |
| Strontium-90 ^u | 8 pCi/L | 4 yr | 4 yr |
| Tritium | 20,000 pCi/L | 4 yr | 4 yr |
| MICROBIOLOGICAL: All community water systems and non-community water systems, using a surface water source or a groundwater source but serving more than 1,000 persons, must monitor total coliform monthly. Non-community groundwater systems serving 1,000 people or fewer monitor total coliform quarterly. | | | |
| Total coliform | 1/5.0% ^v | | |
| <i>Giardia</i> , viruses ^w | TT ^h | | |
| Cryptosporidium ^x | TT ^h | | |

Table 2-1
Primary drinking water regulations regulated contaminants—Continued

| Contaminant | Maximum contaminant level (MCL) (mg/l unless noted) | Monitoring frequency ^a | |
|------------------------------------|---|-----------------------------------|--------------|
| | | Surface water | Ground water |
| Legionella | TT ^h | | |
| Heterotrophic plate count bacteria | TT ^h | | |
| Turbidity ^y | see footnotes | Every 4 hrs | State option |

Notes:

^a These monitoring frequencies are the routine monitoring frequencies and do not account for either increases or decreases in frequency resulting from previous monitoring results or state waivers.

^b 7 MF - 7 million fibers/liter (longer than 10 mm).

^c Monitoring based on population served. Community and NTNCWS systems with populations over 50,000 must have initiated and completed monitoring 1 Jan to 30 Jun 1992; those with populations 3,301 to 50,000 must have initiated and completed monitoring 1 Jul to 31 Dec 1992; and those with a population of less than 3,300 must have initiated and completed monitoring 1 Jul to 31 Dec 1993. ALs are set in lieu of MCLs for first draw tap samples. Actions for improved corrosion control and public education are initiated if the ALs are exceeded in 90 percent of the samples.

^d Only monitoring and reporting are required (40 CFR 141).

^e The Nickel MCL has been remanded, however, Nickel is still classified as a regulated contaminant and must be monitored as such.

^f Repeat monitoring frequency is determined by analytical result and state requirements.

^g Reductions in monitoring frequency are allowed based on previous results.

^h TT - treatment technique. A TT is used when it is not economically or technically feasible to measure the level of the contaminant. Heterotrophic Plate Count monitoring in the distribution system may be used in lieu of demonstrating disinfectant residual (40 CFR 141.72(b)(3)).

ⁱ Four consecutive quarterly samples collected once every three years.

^j Monitoring for community water systems with a population greater than 10,000. MCL applies to running a yearly average of distribution samples. Groundwater systems may have monitoring reduced to yearly (one sample analyzed for maximum trihalomethane potential).

^k This new MCL for Total Trihalomethanes is effective for surface water system and systems using ground water under the influence of surface water (referred to as Subpart H systems) serving 10,000 or more consumers by December 2001. It is effective for all other systems by December 2003.

^l Effective for community and nontransient noncommunity Subpart H systems (systems using any amount of surface water or ground water under the direct influence of surface water) serving 10,000 or more people by December 2001. Effective for all other community and non-community water systems by December 2003.

^m Only for systems using conventional filtration.

ⁿ HAA5 is the sum of the concentrations of mono-, di-, and trichloroacetic acids and mono- and dibromacetic acids.

^o Only for systems using chlorine dioxide in the water treatment process.

^p Only for systems using ozone in the water treatment process.

^q To be conducted with distribution system monitoring for total coliform.

^r Excluding radon and uranium. Radon and uranium are monitored when the gross alpha screening level exceeds 15 picocuries per liter (pCi/L).

^s If gross beta exceeds 50 pCi/L (4 millirem/year), then the individual components must be determined.

^t MCL is for radium-226 plus radium-228; monitoring required when gross alpha screening level exceeds 5 pCi/L.

^u If gross beta exceeds 8 pCi/L, then strontium-90 level must be determined.

^v No more than one sample per month can test positive if fewer than 40 samples are analyzed each month; or no more than 5.0 percent of the monthly samples can test positive if 40 or more samples are analyzed each month.

^w Adequate filtration/disinfection must be provided to meet applicable CT [product of disinfectant concentration (c) and disinfectant contact time (T); that is, C X T] requirements (subpart H, 40 CFR 141).

^x The new TT is effective for all Subpart H systems serving at least 10,000 people in December 2001.

^y The turbidity MCL applies to all Subpart H systems (systems using surface water or ground water under the influence of surface water). For unfiltered systems wishing to avoid filtration, the turbidity may not exceed 5 nephler turbidity unit (NTU) unless the state determines that the value was caused by "unusual or unpredictable" circumstances, and there are not more than two of these events per year or five times in any consecutive 10 years. For systems using conventional filtration or direct filtration, the turbidity level of the filtered water must be less than or equal to 0.5 NTU in 95 percent of the samples per month. The state may allow a turbidity limit to 1.0 NTU if the system demonstrates effective removal of 99.9 percent of *Giardia lamblia* cysts; however, no turbidity measurement may exceed 5 NTU. In systems using slow sand filtration, the turbidity level of the filtered water must be less than or equal to 1.0 NTU in 95 percent of the samples per month. The state may substitute a higher limit for slow sand systems; however, no turbidity measurement may exceed 5 NTU. In December 2001, for systems serving 10,000 people or more and using conventional or direct filtration, the turbidity level of the combined filtered water must be less than or equal to 0.3 NTU in 95 percent of the samples per month. No combined filtered sample may exceed 1 NTU. Samples from individual filters may not exceed 0.5 NTU during the first hours of clean filter operation or 1.0 NTU thereafter based upon continuous monitoring read once every 15 minutes.

Source: Table is current as of 10 Jan 02. (For current information, see 40 CFR 141.)

Table 2–2
Secondary drinking water regulations regulated contaminants

| Contaminant | Secondary maximum contaminant level (mg/l unless noted) |
|------------------------|---|
| Aluminum | 0.05-0.2 |
| Chloride | 250 |
| Color | 15 color units |
| Copper | 1 |
| Foaming agents | 0.5 |
| Iron | 0.3 |
| Manganese | 0.05 |
| Odor | 3 threshold odor units |
| pH | 6.5 - 8.5 |
| Silver | 0.1 |
| Sulfate | 250 |
| Total dissolved solids | 500 |
| Fluoride | 2 |
| Corrosivity | noncorrosive |
| Zinc | 5 |

Notes:

Source: Table is current as of 10 Jan 02. (For current information, see 40 CFR 143.)

Table 2–3
Unregulated Contaminant Monitoring Rule (UCMR) list

| List 1 Assessment monitoring of contaminants with available methods | List 2 Screening survey of contaminants projected to have methods by date of program implementation | List 3 Pre-screen testing of contaminants needing research on methods |
|---|--|---|
| (1) 2,4-dinitrotoluene | (13) Diruron | (29) Algae and toxins |
| (2) 2,6-dinitrotoluene | (14) Linuron | (30) Echoviruses |
| (3) DCPA mono acid | (15) Prometon | (31) Coxsackieviruses |
| (4) DCPA di acid | (16) 2,4,6-trichlorophenol | (32) Helicobacter pylori |
| (5) 4,4'-DDE | (17) 2,4-dichlorophenol | (33) Microsporidia |
| (6) EPTC | (18) 2,4-dinitrophenol | (34) Caliciviruses |
| (7) Molinate | (19) 2-methyl-phenol | (35) Adenoviruses |
| (8) MTBE | (20) Alachlor ESA | (36) Lead-210 |
| (9) Nitrobenzene | (21) 1,2-diphenylhydrazine | (37) Polonium-210 |
| (10) Terbacil | (22) Diazinon | |
| (11) Acetochlor | (23) Disulfoton | |
| (12) Perchlorate | (24) Fonofos | |
| | (25) Terbufos | |
| | (26) Aeromonas Hydrophilia | |
| | (27) RDX | |
| | (28) Nitrobenzene | |

Notes:

¹ **List 1-Assessment monitoring.** Monitoring of List 1 contaminants will occur at 2,800 large PWS and a representative sample of 800 small PWS. Transient water systems are not required to monitor. Surface water systems will monitor quarterly for one year and ground water systems will monitor twice in one year. Assessment monitoring must be done within the three years of 2001-2003.

² **List 2-Screening surveys.** Monitoring of List 2 contaminants will occur after additional rulemaking to specify their analytical methods and monitoring requirements. The monitoring program will be the same as that for List 1, but only for a randomly selected set of 300 large and small systems.

³ **List 3-Pre-screen testing.** Monitoring of List 3 contaminants will be performed only after future rulemaking specifies methods to determine whether a listed contaminant occurs in sufficient frequency in the most vulnerable systems or sampling locations to warrant its being included in future assessment monitoring or screening surveys. EPA will select up to 200 large and small systems from state nominations of systems most vulnerable to List 3 contaminants.

Source: Table is current as of 10 Jan 02. (For current information, see 40 CFR 141.)

Chapter 3

Oil and Hazardous Substances Spills

3-1. Scope

This chapter outlines the procedures to meet the requirements of AR 200-1, chapter 3. CW guidance is provided in Engineering Regulation (ER) 200-2-3 and Engineering Pamphlet (EP) 200-2-3.

3-2. Reporting an oil or hazardous substance spill

a. Initiate spill reporting and cleanup concurrently in accordance with Federal, state, and local regulations and guidance.

b. Immediately report any spill or release of oil or hazardous substance to the on-scene coordinator (OSC). Take reasonable actions to eliminate the source and contain the spill in accordance with the Spill Contingency Plan (SCP) and the Spill Prevention, Control, and Countermeasures Plan (SPCCP).

c. The OSC will immediately implement the appropriate Facility Response Plan (FRP).

d. Listings of Federal reportable quantities for oil and hazardous substances are cited in 40 CFR 61, 40 CFR 110, 40 CFR 280, 40 CFR 300.405, 40 CFR 302, 40 CFR 355, and 49 CFR 171.15. State or local agencies may list other chemicals or establish a lower threshold for a reportable quantity. Check state or local reportable quantity lists.

e. The OSC will immediately report, by telephone or facsimile, a spill of a reportable quantity through command channels to required Federal, state, or local agencies as identified in the SCP and, within 48 hours, to the MACOM environmental office and support installation (see figures 3-1 and 3-2, located at the end of this chapter). CW activities will report through command channels to a level appropriate for the issue.

f. If only telephonic notification is provided initially, submit a written report of a spill of a reportable quantity through command channels to—

(1) The MACOM environmental office and support installation, concurrently, within 2 working days after telephone notification.

(2) The EPA regional, state, or local administrator as required by law (see 40 CFR 112.4 and 40 CFR 355).

g. The OSC will notify the installation environmental office of all spills.

h. Release information regarding oil or hazardous substances spills using the following guidelines:

(1) Furnish information in a timely, accurate manner to assure full disclosure. This reflects consideration of the public welfare, is in the nation's interest, and is a function of command. The public is entitled to all unclassified information concerning an oil or hazardous substance spill.

(2) Coordinate information proposed for release with the installation's public affairs office (PAO) and higher headquarters, as necessary, prior to release.

(3) Follow procedures described in the public affairs appendix of the SCP. Information released should—

(a) Ensure public safety.

(b) Prevent or reduce widespread alarm.

(c) Ensure understanding of the extent and nature of hazards resulting from the spill.

(4) Follow the specific guidance in AR 360-5 regarding the release of information concerning chemical surety material and accidents resulting in casualties.

3-3. Spill Prevention, Control, and Countermeasures Plan

a. *Required plans.*

(1) Prepare SPCCPs, when required by 40 CFR 112, because of the volume of stored petroleum, oils, and lubricants (POLs) or because the storage location is such that a spill could reasonably be expected to discharge into or upon navigable waters.

(2) Prepare a RCRA (HW) Contingency Plan in accordance with subpart D of 40 CFR 264 or 265 for facilities that manage hazardous waste in either a 90-day storage facility (see 40 CFR 262.34(a)(4)) or in a RCRA treatment, storage, and disposal facility (TSDF) with a Part B permit, permitted or with interim status.

b. *Contingency plans.*

(1) Although not Federally required, AR 200-1 (para 3-3b) requires facilities to include a contingency/response plan for hazardous substances as part of an SPCCP.

(2) HW contingency plans should also be part of the SPCCP.

c. *Plan preparation.* Guidance on the preparation of an SPCCP can be obtained from 40 CFR 110, 40 CFR 112, 40 CFR 300, 40 CFR 302, 61 FR 28642, and USAEC's Regulatory Guidance for Fuel Tanker Trucks at Army Facilities.

d. *Implementation and review of a SPCCP.*

(1) Ensure the SPCCP is signed by the installation or garrison commander or the appropriate installation authority. This authority includes the ability to implement the requirements of the plan in a timely manner during an emergency.

(2) Ensure the SPCCP is reviewed and approved by a professional engineer (PE) registered in the state the installation is located in with his or her seal and signature on a signature page.

(3) Include a signature page for review and concurrence when a change in command takes place. This procedure provides a good opportunity to brief the response organization.

(4) Review the plan annually and update it as necessary. A PE must recertify the plan when changes occur in installation design, construction, operation, or mission.

(5) Maintain a current, original SPCCP, with appendices, for on-site review by EPA or state representatives. Appropriate sections of the spill plans should be located at potential spill sites if the facility is normally attended at least 8 hours per day. If attended less than 8 hours per day, keep the plan at the office responsible for the facility. Workers must know of the plan and how to execute their responsibilities in case of an emergency.

(6) Provide the SPCCP to state or EPA officials for review if requested or required (see 40 CFR 112.4 and the appropriate state regulations).

(7) Implement the SPCCP, including required construction, installation of equipment, periodic health monitoring, and safety and occupational health (SOH) training of personnel.

(8) Prepare and implement a SPCCP for newly activated facilities before operations commence, or coordinate with the installation environmental office to ensure that activities will be covered by an existing plan.

(9) Brief operating personnel at intervals frequent enough to ensure adequate understanding of the SPCCP. Conduct annual training exercises in addition to briefings.

3-4. Facility Response Plan

a. Installations that store or use oil or hazardous substances must plan for spills or releases that could damage the environment.

b. The FRP should be integrated into the SPCCP. The one plan will integrate various emergency response plans at an installation into an integrated contingency plan that will provide coordination of response activities within the facility, minimize duplication, and simplify plan development and maintenance.

c. Spill contingency planning should be commensurate with the quantity, volume, and toxicity of the oil or hazardous substances used and the potential for environmental damage.

d. The potential for spills and releases should be included in planning for field exercises and training activities.

e. Formal FRPs are required when significant damage to the environment may occur.

f. At a minimum, spill planning should include the following:

(1) Provisions specifying the responsibilities, duties, procedures, and resources to be used to contain and clean up spills, including those for a regional response team (RRT) when implementing the National Contingency Plan (NCP).

(2) A description of immediate response actions that should be taken when a spill is first discovered.

(3) The name, responsibilities, and duties of the OSC. The OSC is the official that coordinates and directs Army control and cleanup efforts at the scene of an oil or hazardous substance spill on or near the installation.

(4) Provisions for emergency response. If in-house response capability is needed, these provisions may include the specifications, composition, and training plans of the installation response team (IRT), which are directed by the OSC. There may also be a contract or cooperative agreement for response services from outside agencies or contractors. Identify a response operations center.

(5) Procedures to alert and mobilize the IRT, including provisions to access a reliable communications system for timely notification of an oil or hazardous substance spill.

(6) A current list of the persons and alternates who are on call to receive notice of an oil or hazardous substance spill. The list should contain the following:

(a) Procedures for reporting an oil or hazardous substance spill, both by telephone and in writing.

(b) The names, positions, telephone numbers (home and work), and addresses of individuals representing key organizations and agencies to be notified when a discharge is discovered.

(7) Surveillance procedures for early detection of oil and hazardous substance spills.

(8) The quantities and locations of personnel, equipment, vehicles, supplies, and material resources. Define specific actions for various magnitudes of potential spills that are identified in the SPCCP inventory lists. Provide a prioritized list of the various critical water uses that must be protected in the event of a spill.

(9) Other resources available to an installation to clean up or reclaim a large spill due to Army activities, if such a spill exceeds the response capability of the installation (for example, assistance from the U.S. Coast Guard (USCG), Air Force, Navy, or private contractors). Include outside contractors or resources available that can expeditiously contain, recover, and remove harmful quantities of oil or hazardous substances spilled as a result of Army activities on or near the installation.

(10) Procedures to request assistance and agreements to quickly acquire resources during a major disaster or response situation.

(11) Procedures and techniques used to identify, contain, disperse, reclaim, and remove oil and hazardous substances used in bulk quantity on an installation. Identify chemicals and equipment that may be used to concentrate, neutralize, collect, disperse, and remove oil or hazardous substance spills. Take pollution control actions per applicable regulations, EPA guidelines, and the NCP.

(12) Army resources useful to the RRT in case Army agencies are asked to aid in the cleanup of a spill not due to Army activities. AR 500-60 contains procedures to recover costs encountered during the cleanup of such spills. Coordinate with the Local Emergency Planning Committee (LEPC) and the State Emergency Response Commission when responding to these actions.

(13) A description of safety precautions for known hazardous substances on the installation.

(14) A public affairs appendix that describes the procedures, responsibilities, and methods for releasing information to the public in the event of a spill.

(15) An emergency medical-support ready-reference list to facilitate obtaining on-site medical support. Coordinate with the Installation Medical Authority (IMA) and the Director of Emergency Medical Services.

g. Implementation, training requirements, and review of FRPs.

(1) Installations and activities will maintain a current FRP that will be reviewed and evaluated annually. Any changes that affect spill potential or capability must be entered into the plan immediately. Any amendment made to the SPCCP must be reflected in the FRP.

(2) Yearly training will be provided to test the effectiveness of FRP personnel and equipment. The purpose of this training is to ensure a timely and effective response in case of a spill. MACOMs may approve a different training schedule for those installations where yearly training is not appropriate or where less frequent training is sufficient.

(3) Copies of FRPs, with changes, will be kept on file at the installation in the emergency operations center, fire department, public works office, preventive medicine office, safety office, security office, PAO, environmental office, and each site that stores, handles, or transfers oil or hazardous substances for which there is a reasonable possibility of a significant spill.

(4) Installations will coordinate spill response planning, actions, and training with the safety office and the IMA. This coordination will help ensure compliance with safety and health requirements and inclusion in the installation's occupational health monitoring program. Assistance in locating appropriate training can be provided by the USACE and USAEC. (Also see para 15-13 of this publication.)

3-5. Radiological spills and contingencies

a. The requirements for the management of radiological spills and contingencies are defined in 10 CFR 20, 10 CFR 30, 10 CFR 40, and 10 CFR 70.

b. Spills of radiological material occurring on installations require immediate action. The environmental office does not, however, have lead responsibility in handling such spills. The installation radiation protection officer (RPO) and the installation safety office must be immediately notified to respond. The source material in most radioactive commodities is sealed and, therefore, not prone to leakage. The Nuclear Regulatory Commission (NRC) licenses each commodity or class of commodities. These licenses are held by elements of the Army Materiel Command (USAMC). These licenses contain specific procedures for the reaction to spills or other accidents or incidents.

c. Care must be taken with regard to tritium sources. Tritium, in the form of a gas or water vapor, is typically sealed in glass ampoules and used for its luminescent properties. Breakage of the ampoule, especially indoors, can result in contaminated surroundings and extensive cleanup requirements. Most of the other commodity isotopes, while possibly harmful if ingested, would not be a radiation problem unless involved in a fire or other incident where they could be spread. They include the following:

- (1) Americium 241 (chemical agent detectors).
- (2) Cesium/beryllium (MC1 soil moisture density detectors).
- (3) Nickel 63 (chemical agent monitors).
- (4) Plutonium 239 (RADIAC calibrators).
- (5) Strontium 90 (RADIAC calibrators).
- (6) Cesium 137 (other calibrators).
- (7) Thorium 232 (night vision devices and aircraft components).
- (8) Depleted uranium (munitions and armor).
- (9) Radium (old gauges and dials).

d. If a spill occurs, double wrapping in plastic bags should immediately contain the source. Personnel in the area must be notified of the situation. Those exposed must remain in the general area, if possible, but away from additional exposure to the immediate incident area to avoid spread of the contamination. Personnel should remain upwind of a fire or other environmental release. The area must be isolated to avoid increased exposure. The RPO must monitor the area and determine what further action is required. He must also notify the license holder for the commodity and the USAMC Radiation Safety Office.

e. Personnel possibly exposed to or contaminated with radioactive material must be monitored for exposure and will require medical evaluation. Since this may require time critical bioassays, it is imperative that the installation RPO be contacted immediately to get that process started.

f. The following are Army NRC license holders:

(1) Commander, U.S. Army Communications-Electronics Command (CECOM), ATTN: AMSEL-SF, Fort Monmouth, NJ 07703-5024 (RADIAC calibrators, thorium night vision devices, tritium compasses).

(2) Commander, U.S. Army Aviation & Missile Command (AMCOM), ATTN: AMSAM-SF, Redstone Arsenal, AL 35898-5400 (RADIAC calibration operations, aircraft components).

(3) Commander, U.S. Army Tank Automotive and Armaments Command (TACOM), ATTN: AMSTA-CS-CZ, Warren, MI 48397-5000 (MC1 moisture density gages, tank armor, radium gages).

(4) Director, U.S. Army Armament and Chemical Acquisition and Logistics Activity (ACALA), ATTN: AMSTA-AC-SF, Rock Island, IL 61299-6000 (tritium fire control devices, chemical agent detectors, chemical agent monitors, rifle sights, M7/M8 radioactive check sources).

(5) Commander, U.S. Army Operations Support Command, ATTN: AMSOS-SF, Rock Island, IL 61299-6000 (depleted uranium penetrators, light anti-tank weapon sights-M72 series).

3-6. Technical assistance

Technical assistance in preparing SPCCPs and FRPs may be obtained from the sources below. CWF managers should consult their environmental compliance coordinator network for sources of technical assistance. (See app B for mailing addresses and Web sites.)

- a.* USACE, Installation Support Center.
- b.* USAEC, Compliance.
- c.* USACHPPM, Surface Water and Wastewater.
- d.* U.S. Army Materiel Command Installations and Services Activity (USAMC-ISA) (for USAMC installations).

| ORGANIZATION | PHONE NUMBER |
|--|----------------|
| 1. National Response Center | 1-800-424-8802 |
| 2. On-scene Coordinator (OSC) | |
| Day | |
| Evening | |
| 3. Installation Response Team (IRT) | |
| Day | |
| Evening | |
| 4. Installation Environmental Office | |
| Day | |
| Evening | |
| 5. Local Response Team | |
| 6. Installation Fire Department | |
| Day | |
| Evening | |
| 7. Military Police | |
| 8. State Emergency Response Commission | |
| Day | |
| Evening | |
| 9. Local Emergency Planning Committee (LEPC) and/or Municipal Fire Department | |
| 10. Local Water Supply System | |
| 11. Weather Report | |
| 12. Installation Medical Authority (IMA) | |
| 13. Public Affairs Office (PAO) | |
| 14. Safety Office | |
| 15. MACOM | |

Figure 3-1. Sample emergency notification phone list

| Spill Response Notification Information | |
|---|----------|
| *Installation Point of Contact | |
| *Phone Numbers | |
| *Reporter's Name | |
| *Position | |
| *Phone Number | |
| *Installation | |
| Address | |
| City | |
| State | |
| Zip Code | |
| *MACOM | |
| *Date Reported | |
| *Time Reported | |
| *Source and/or Cause of Incident | |
| *Date of Incident | |
| *Time of Incident | |
| *Incident Address/Location | |
| *Nearest City | |
| State | |
| County | |
| Zip Code | |
| Distance from City | |
| Direction from City | |
| Section | |
| Township | |
| Range | |
| Facility Capacity | |
| Facility Latitude | |
| Facility Longitude | |
| *Tank Capacity | |
| *Container Type | |
| *Material | |
| *Released Quantity | |
| *Quantity Released in Water | |
| *Unit of Measure | |
| CHRIS Code | |
| *Reportable Quantity | |
| - *Federal | - *State |
| *Action Taken to Correct, Control, or Mitigate Incident | |
| *Number of Injuries | |
| *Number Evacuated | |
| *Cleanup Costs | |
| *Notification | |
| - EPA | |
| - USCG | |
| - State | |
| - National Response Center | |
| - Other | |
| * Minimum requirements to be included, if applicable. | |

Figure 3-2. Sample spill response notification information

Chapter 4

Hazardous Materials Management

4-1. Scope

This chapter outlines the procedures to meet the policy goals of AR 200-1, chapter 4.

4-2. Installation Hazardous Material Management Program

a. The Installation Hazardous Material Management Program (HMMP) is under the direction of the Environmental Quality Control Committee (EQCC). A working group, typically called the Hazardous Material Control Group (HMCg), will be formed by the EQCC with the mission of improving hazardous material (HAZMAT) management at the installation. This typically involves implementing the integrated management approach needed to obtain “cradle-to-grave” visibility of HAZMAT and HW throughout the life cycle of procurement, storage, handling, use, and ultimate disposition at the installation. Intensive management at a level consistent with the installation’s mission and operational requirements is required.

b. The HMCg is an operating activity of the IC that is empowered to institute and monitor policy and procedures established to manage HAZMAT and HW. Consisting of personnel from base operation activities, as well as troop units and tenants, the HMCg meets regularly to—

- (1) Review the results of HAZMAT and HW management practices (MP) that have been previously instituted and make adjustments as necessary.

- (2) Develop new MP as required.

- (3) Review and authorize authorized use and user lists (AULs).

- (4) Review existing and new process technology.

- (5) Review various management reports to determine if the policies and procedures are having a positive effect on the reduction of HAZMAT use and HW generation.

c. USACE will promulgate guidance for the Army CW program separately.

d. The working group will be cross-functional, with the following representation as a minimum: Logistics, Safety, Industrial Hygiene, P2, and HW. Command support is essential to a successful cross-functional HAZMAT management program. The working group will establish, review, and update procedures to:

- (1) Ensure that the use of HAZMATs is reduced consistent with mission requirements. Refer to paragraphs 4-2f and 10-2l for discussion of centralized HAZMAT/HW management business practices as a method to manage HAZMATs.

- (2) Plan, program, and recommend budget resources to effectively manage and control HAZMATs.

- (3) Monitor environmentally proper and safe procedures for the procurement, tracking, use, storage, and disposal of HAZMATs.

- (4) Represent the commander in all matters that pertain to HAZMATs on the installation/facility. The working group will manage the process substitution, materials recovery, recycling, and reuse of HAZMATs.

e. HAZMAT inventory management will be considered an integral part of the Army P2 Program.

- (1) *Collection of information.* Installations will identify and track the annual procurement, use, and storage of HAZMATs. Data collected will include the unit or activity, location, material, quantity, and usage and maximum amount stored per year. Material identifiers, such as the national stock number (NSN) and common name, will be provided. The NSN or material identification will be tied to the chemical composition and a material safety data sheet (MSDS). This information will be used and updated annually for Emergency Planning and Community Right-to-Know Act (EPCRA), state, and local reporting requirements. The Hazardous Substance Management System (HSMS) is the Department of Defense (DOD) standard automation tool to support these processes.

- (2) *AUL.* The AUL will be a key management tool for the working group to manage HAZMATs at an installation. The working group will approve the use of the HAZMATs on the AUL and ensure policy is set and met that restricts HAZMATs to authorized users and locations. The AUL will be reviewed periodically for material substitution opportunities of HAZMATs with less hazardous or nonhazardous materials.

f. Contingency plans (see chap 3) should include HAZMAT incidents. The detail and complexity of contingency planning should be based on regulatory requirements and commensurate with the risk of incident, cost of remediation, and potential environmental damage. The EQCC, or its designee, should review all of the contingency plans.

g. The IC will ensure procedures are established to manage HAZMAT procurement with the goals of source reduction and reduced HW costs. These procedures will include, at a minimum, the cross-functional working group and AUL.

- (1) The working group will determine the best method to manage the procurement of HAZMATs, and will institute procedures that control the use of credit card purchases of HAZMATs. It is important to implement policy that will reduce the number of supply and procurement systems delivering HAZMATs to the installation.

(2) The concept of operation for integrated HAZMAT and HW management will vary from installation to installation. The concept will drive the resource requirements for its implementation. The operational concepts and initiatives can include the following:

- (a) Establish a centralized HAZMAT management cell.
- (b) Establish inventory levels at the user and operator levels.
- (c) Implement a HAZMAT tracking system.
- (d) Establish reuse procedures.
- (e) Establish an authorized user and AUL.
- (f) Order and dispense by unit-of-use versus unit-of-issue.
- (g) Implement a HAZMAT training and awareness program.
- (h) Establish centralized storage and issue of HAZMATs.

(3) The working group will centralize all information pertaining to HAZMATs such as the inventory list, AUL, personal protective equipment (PPE), and training requirements. The working group will develop a comprehensive HAZMAT management implementation plan at their specific installation. Assistance is available from USAEC. A requirement for the implementation plan is the documentation of all the current HAZMAT procurement, receipt, storage, and issue methods for their particular installation. Once documented, the HAZMAT management implementation will include a plan to gain and maintain visibility of all installation procurement transaction and storage data as well as HW disposal data. Centralized management has proven critical to proper HAZMAT management at both large troop installations and major depot operations.

h. Weapon system acquisition programs should consider the life-cycle cost of HAZMATs. Decisions regarding the purchase or use of HAZMATs will be based on an analysis of the cost and benefit of the materials over the entire life cycle of the material. Cost analysis will begin at the earliest possible stage of the process (normally the planning and design stage) and will be updated as better information becomes available. Current EPA or Army guidance manuals and/or models for life cycle cost analysis will be used.

4-3. Storage and disposal of non-Defense toxic and hazardous materials

Hazardous or toxic material that is not owned by DOD may not be stored, treated, or disposed of on Army-owned property except as authorized under 10 USC 2692. Authorization that requires approval by the Secretary of the Army (for example, exceptions 8 and 9) should be forwarded through command channels to HQDA, Department of the Army, Installation Management, Environmental Directorate (DAIM-ED), 600 Army Pentagon, Washington, DC 20310-0600. All determinations that proposed storage, treatment, or disposal, within exception 9, are authorized by 10 USC 2692 and must be reviewed by Army legal counsel.

4-4. Polychlorinated biphenyl management

a. Installations and CWFs with equipment containing polychlorinated biphenyl (PCB) compounds will—

(1) Establish procedures to ensure proper management, handling, and control of PCBs. Specific responsibilities, personnel training, inspection procedures, documentation, operation, and management of storage areas and safe handling practices will be detailed.

(2) Maintain an inventory of all the equipment, including tenant, subinstallation, and support activities, in service or in storage, that contain PCBs in concentrations above 50 parts per million (ppm) or as required by law. PCBs have been used in a wide variety of electrical, hydraulic, and heat-transfer operations and are found in process equipment, hydraulic systems, electrical equipment, light ballasts, paints, and oil-filled electrical transformers.

(3) Train persons handling PCBs, or who may have potential exposure to PCBs, to execute their responsibilities in a safe and environmentally correct manner. This training may be incorporated into hazard communication training (29 CFR 1910.1200), emergency response training (29 CFR 1910.120(q)), and/or other spill response training as long as it addresses EPA specific recommendations for spill cleanup (see para 4-4c). Persons working with PCBs will be provided with proper protective equipment and identified to the IMA for possible inclusion in a health-monitoring program.

(4) Label equipment-containing PCBs. All oil-filled electrical equipment without analytical records, service records, or a manufacturer's label stating the transformer's PCB concentration is subject to the PCB concentration assumptions in 40 CFR 761.2. Such assumptions are used to determine the status of electrical equipment with unknown information relating to its origin and/or contents. Once the regulatory status of the electrical equipment is determined, it must be labeled in accordance with the provisions of 40 CFR 761.40 that are applicable to such equipment. Use laboratory analysis or another EPA-approved method to determine the actual PCB concentration. Retain documentation of the presence, concentration, or absence of PCBs.

(5) Dispose of PCB equipment through the Defense Reutilization and Marketing Office (DRMO), following state and local requirements in addition to Federal PCB regulations. CWFs will consult their logistics office regarding the use of DRMO or alternate sources.

b. Intact, small PCB items (capacitors and other PCB-bearing equipment under 3 pounds) are not regulated by 40 CFR 761. However, if their contents are released to the environment they become regulated, and the release must be

handled in accordance with PCB spill cleanup requirements and reported to the National Response Center if a reportable quantity of materials is released into a landfill. Equipment containing small PCB items will be identified with a “contains PCB” label. Small PCB items will be—

- (1) Identified on hand-receipts and turn-in documents as containing PCBs.
- (2) Removed from equipment before disposal whenever possible.
- (3) Separated from regular solid waste and disposed of as PCB waste.
- (4) Disposed of or demilitarized by methods that preserve the integrity of the equipment, as opposed to crushing or other release-resulting processes. Incineration by approved PCB incinerators is permitted.

c. PCB releases will be handled in accordance with 40 CFR 761.60, 40 CFR 761.61, 40 CFR 761.62, or 40 CFR 761.120, as appropriate, as well as applicable state and local requirements.

d. The IC or CWF manager will sign the annual report required by 40 CFR 761.180. ICs may not delegate this responsibility except as specified in AR 200-1, paragraph 1-27a(11). This report must be completed by 1 July of each year.

e. Annual reports, analytical data, inventories, manifests, storage and disposition records, release reports, and other PCB-related records will be consolidated and retained at installations and CWFs. These reports include tenant, subinstallation, and supported activity documentation.

4-5. Storage tank systems

a. Installation and CWF managers must identify state and local requirements and determine a strategy to ensure compliance.

b. Installation and CWF managers must implement a comprehensive management strategy to manage storage tanks on Army facilities or under Army control.

- (1) Reduce total storage capacity consistent with mission requirements.

(a) Evaluate tank storage requirements every 5 years, when considering new tank construction, or with a significant change in mission.

(b) Consider options to on-site storage, such as off-site storage, retail fueling arrangements, or the use of Defense Logistics Agency (DLA) central facilities.

(c) Consider the benefits of consolidating storage locations to reduce storage requirements, improve control, and decrease environmental risks.

(d) Consider just-in-time servicing arrangements and other procedural techniques to reduce product transfers and handling.

- (2) Implement best management practices through written local procedures to include the following:

(a) Regulatory requirements and local tank management policy.

(b) Responsibilities for tank program oversight, management, and execution.

(c) Procedures for preventive maintenance and inspection and maintenance of tank systems, including P2 devices to reduce fuel loss and environmental damage.

(d) Training for all persons operating tank systems or transferring products so they know how to operate P2 equipment, respond properly to leaks and spills, and perform their job in an environmentally safe manner.

(e) Handling procedures to minimize environmental risk.

(f) Procedures to minimize small spills and drips during handling. Ensure that small spills are immediately cleaned up and reported, if necessary (see chap 3).

(g) Tank tightness testing in accordance with Federal, state, and local requirements and procedures.

(h) Routine procedures for product usage and inventory controls to investigate shortages that may be caused by tank system leaks.

(i) Internal control procedures to investigate leaks, spills, or releases.

- (3) Ensure tank data and reporting requirements are properly managed.

(a) The use of a tank management software is encouraged, however use of the TANKMAN software is not required and is not currently supported by Army helpdesk resources. The purpose of the tank management software is to enable tank managers to maintain accurate and up-to-date data on all the storage tanks (underground and aboveground) at the installation. The software used should allow a tank manager to promptly obtain tank history, compliance status information, and physical data on all storage tanks.

(b) MACOM, major subordinate commands (MSCs), and ICs/the Adjutants General (TAGs)/Reserve Support Commands (RSC) commanders will establish command policy and responsibilities to ensure that aboveground storage tanks (AST) and underground storage tanks (UST) reports are submitted according to timelines given in separate data calls; data meet reporting requirements; and corrections or additions deemed necessary by HQDA, MACOM, or MSC are completed.

(c) The USAEC storage tank program manager (PM) will serve as the POC on all matters involving storage tank data; take appropriate action when data are incomplete, not accurate, and/or not submitted by the scheduled date; and provide reports on storage tank data to HQDA, MACOMs, MSCs, and installations as requested.

(d) At a minimum, installations should keep track of the total number of all types of tanks including USTs, HOTs, oil-water separator tanks, and ASTs. Data should also be kept on which of these tanks is regulated by either the state or EPA, which are in compliance with state or EPA regulations, and which are registered with either the state or EPA. These data elements can be expected to be requested in data calls in the future. Tank managers are recommended to track the tank data identified in table 4-1 for tank management purposes.

(4) Ensure an accurate tank system inventory.

(a) Ensure that all tank systems under Army control on the installation, sub-installations, supported facilities, and CWFs are included. The use of coordinated information management systems is encouraged.

(b) Regulated and unregulated tank inventories should be separated so that the regulated tank inventory may be provided to regulators during an inspection.

(c) The tank inventory should include all regulated tank systems; all unregulated tank systems; construction, age, and capacity; product stored; compliance status of each tank system; state or local tank registration information; and EPR Report (formerly RCS-1383) project numbers and funding requirements.

c. Installations and CWF managers must have procedures in place for properly managing leaking or malfunctioning tank systems.

(1) Adhere to implementing agency time frames for reporting and responding to leaks.

(2) Determine the proper level of release prevention and response planning based upon site-specific characteristics and regulatory requirements.

(3) Release prevention and response planning should be commensurate with the amount of toxicity and potential for harm. It should also be consistent with the release prevention and response requirements of chapter 3 of this publication.

(4) Tank operators have a working knowledge of product usage and usually provide the first indicator of a problem. They should maintain good product inventory controls and records and systematically evaluate usage for indications of product loss through tank leakage. Investigate shortages and report suspected leaking tanks to the OSC immediately.

(5) Where leak detection by inventory control is used, follow the specific requirements addressed by state and Federal regulations.

(6) Ensure that after the completion of repairs or replacement, qualified personnel have certified the integrity and operation of the system before the system is returned to service.

d. All out-of-service, temporarily closed, and abandoned tanks must be removed from the ground within 1 year of last use or discovery, or sooner as regulations dictate.

e. Removal and site assessment are the prescribed methods for tank closure. However, where not feasible, tanks may be closed in-place after coordination with the appropriate regulators and provided that equivalent steps are taken to protect the environment, identify past releases, and monitor future changes. CW closure requests will be resolved at the district level.

f. Installation and CWF managers must ensure that all monitoring wells are installed properly, according to industry standards. A qualified hydrogeologist should supervise the location and installation of monitoring wells, and all wells should be marked on installation maps. Wells that are no longer required should be properly closed.

g. Installation and CWF managers must consider many aspects of tank construction, replacement, and retrofit as follows:

(1) New tank systems, either replacement or new construction, will be fully justified. Use total life cycle cost analysis, including ecological sensitivity of the site, potential for environmental harm, and remediation expenses. Fully consider off-site alternatives, consolidated storage, or other options that minimize the storage quantity or number of storage tanks.

(2) Design new tank systems to minimize environmental risk. Assess environmental risk potential and include appropriate mitigation measures during the design process.

(3) Drawings and specifications for installing new POLs bulk and retail storage and dispensing facilities on military installations will be submitted for review to the Commander, U.S. Army Petroleum Center (USAPC), ATTN: SATPC-QR, New Cumberland, PA 17070-5008. USAPC may establish review criteria or waive this requirement.

(4) Persons inspecting tank systems; supervising the installation, removal, or replacement of tank systems; or performing contractor quality assurance/quality control (QA/QC) on these operations must be specifically trained and qualified in performing these duties.

(5) Many states require certified tank installers and notification prior to the start of any removal or replacement project. Thoroughly test and certify new tank systems prior to use. This includes the installation and operation of all P2 devices.

(6) Design secondary containment of material impervious to the product being stored. Provide protection against surface or groundwater contamination. Provide for product recovery. Design secondary containment to protect against undetected leaks as well as catastrophic failure.

(a) All new UST systems with a capacity greater than 600 gallons will use double-walled construction with interstitial leak detection and have cathodic protection.

(b) New UST systems with less than or equal to 600 gallons capacity may use single walled construction with cathodic protection.

(7) Retrofit existing USTs with cathodic protection, catch basins, and overfill warning devices.

(8) Use of the USACE Guide Specifications, applicable to the type of tank installation, is strongly recommended. Specification preparation must be coordinated with state and local authorities. Some state and local requirements are more stringent than the guide specifications.

h. Requirements for AST systems are as follows:

(1) Retrofit existing AST systems with secondary containment and, for field erected tank systems, retrofit with leak detection systems. Where this is not feasible, strong contingency procedures must be addressed in the FRP (see AR 200-1, chapter 3).

(2) Construct new AST systems with alarms (that is, overfill, vapor protection), cathodic protection, secondary containment, and overfill protection.

i. Heating oil tanks (HOTs) are excluded by the Federal government and most states from regulation as USTs. Some states may regulate HOTs or releases from HOTs under the provisions of the CWA. While not eligible as a Class 0, Class 1, or Class 2H project in the EPR unless there is an applicable requirement under a state environmental law, preventive measures equivalent to those for USTs are prudent. Cleanup necessitated by spills from leaking HOTs can be as expensive as leaks from regulated RCRA-I tanks. Preventive measures are likely to be less expensive than remediation after environmental damage occurs. Maintenance of HOTs is a facility's engineering requirement under AR 420-49 with potential environmental implications. Thus, installation environmental personnel should provide advice to facilities engineering personnel with regard to prudent management procedures, as necessary.

j. Requirements for tanks associated with oil-water separators are as follows:

(1) By Federal regulation, oil-water separators regulated by either section 402 (NPDES permit) or 307(b) (pretreatment) of the CWA are excluded from regulation under RCRA-I. Oil collection tanks that are attached to, physically close to, and a functionally integrated component of an oil-water separator system that is subject to either section 402 or 307(b) of the CWA should be considered a part of the oil-water separator system, and thus regulated and managed under the CWA.

(2) Oil collection tanks that are not covered by either section 402 or 307(b) of the CWA may or may not be deferred from regulation as RCRA-I USTs, depending on the operation and location of the oil collection tank. Oil collection tanks that are physically connected to, but functionally or geographically distinct from, the operation and location of the oil-water separator should be managed under RCRA-I, provided that the tanks otherwise qualify as RCRA-I USTs under 42 USC 6991, 40 CFR 280.10, 40 CFR 280.12, and/or applicable state law. State law should be consulted to determine whether there are different or additional requirements for oil-water separators or associated oil collection tanks. Installation environmental and engineering staff should determine, and clarify with regulators if necessary, whether an oil collection tank associated with an oil-water separator system falls under the CWA, RCRA-I, or one of the RCRA-I exclusions and deferrals defined at 40 CFR 280.10.

Table 4-1
Tank data to be maintained

| For this data | Maintain the following information |
|---------------|--|
| Tank data | <ul style="list-style-type: none">• Date installed.• Owner (e.g., Government-owned/Government-operated).• Material (e.g., steel).• Contents (e.g., gasoline).• Leak detection (e.g., inventory control).• Internal protection (e.g., internal lining).• Cathodic protection (e.g., galvanic).• AST type (e.g., indoor –stationary).• Capacity (e.g., tank volume).• Usage (e.g., dispensing).• Status (e.g., in use).• Containment (e.g., single walled vault).• Spill/overfill (e.g., basin).• External protection (e.g., asphalt coated).• Vapor recovery (e.g., indicate type). |

Table 4-1
Tank data to be maintained—Continued

| For this data | Maintain the following information |
|--|--|
| Piping data | <ul style="list-style-type: none"> • Date installed. • Containment (e.g., double walled). • Leak detection (e.g., interstitial monitoring). • Material (e.g., copper). • External protection (e.g., fiberglass reinforced plastic). • Cathodic protection (e.g., impressed current). |
| Compliance data | <ul style="list-style-type: none"> • Regulated by Army/Federal/state/local. • Is the tank in compliance/out of compliance? • Is the piping in compliance/out of compliance? |
| Permit data | <ul style="list-style-type: none"> • Type of permit. • Status of permit (e.g., required but not received). • Expiration date. • Permit number. • Issuing agency. • Issue date. • Permit fee. |
| Leak information | <ul style="list-style-type: none"> • Identify all leaking tanks. • Incident numbers. • Estimated loss of product. |
| NOVs | <ul style="list-style-type: none"> • Items receiving the NOV (e.g., tank/piping/both). • Type of NOV (e.g., administrative). • Issuing agency. • Notice date. • NOV identification. • Regulatory requirement. • Actual (or projected) compliance date. |
| Test data | <ul style="list-style-type: none"> • Test type. • Results. • Tank testing and/or certification contractor (prime and sub). |
| Closure data | <ul style="list-style-type: none"> • Filing date of tank closing plan. • Site assessment: date, results, and remarks. • Removal. • Remediation. |
| EPR report project/budgeting information | <ul style="list-style-type: none"> • EPA project number. • Compliance status. • EPA class number. • Funding code. • Required date. • Planned cost. • Planned completion date. • Actual cost. • Actual completion date. |

4-6. Lead hazard management

a. General. Army installations worldwide are required by AR 420-70 to provide and maintain a comprehensive Lead Hazard Management Program (LHMP). CWFs can adapt the guidance in this regulation to their facilities and operations, as appropriate. A successful program entails participation from a variety of technical disciplines that include the Directorate of Public Works (DPW), Director of Logistics (Director of Supply) (DOL), and industrial hygiene/safety, preventive medicine, legal, housing, public affairs, and environmental offices.

b. Lead-based Paint (LBP) Hazard Management Program.

(1) Establishes procedures to manage and control lead hazards that follow applicable Federal, state, and local regulations.

(2) Assumes painted surfaces in or on facilities constructed prior to 1978 contain LBP unless documented testing or historical data indicate that only non-LBP was used.

(3) Ensures contracts for projects involving the removal and disposal of lead-contaminated material at military installations are reviewed and approved by the environmental coordinator (EC) and comply with RCRA household hazardous waste requirements. Contracts must require compliance with all applicable environmental regulations under the Toxic Substances Control Act (TSCA), Title IV, and state or local LBP regulations, including all applicable disclosure requirements during transfer or lease of residential property or notification prior to remodeling or renovation of target housing.

(4) Complies with Title X of Public Law (PL) 102-550.

c. *Guidance.* Additional guidance on lead exposure reduction may be obtained from the Army lead and asbestos Web site (<http://www.hqda.army.mil/acsimweb/fd/LeadAsbestos/pages/home.htm>).

4-7. Hazardous material technical assistance

Installations and MACOMs may obtain technical assistance on handling HAZMATs and disposal procedures from the sources below. Managers at CWFs should consult their environmental compliance coordinator network for sources of technical assistance. (See app B for mailing addresses and Web sites.)

a. DOD Pesticide Hotline, DSN 584-3773, commercial 410-671-3773.

b. HQDA DASG-HS.

c. HQDA DAMO-NCC.

d. Office of the Director, Environmental Programs (ODEP), Compliance.

e. USACHPPM, Hazardous and Medical Waste. Request for guidance on the ultimate disposition of excess and unserviceable hazardous chemical stocks should include the following:

(1) NSN.

(2) Complete nomenclature and/or trade name.

(3) Ingredients and their percentages.

(4) Military specifications.

(5) Quantity or volume intended for disposal.

(6) Manufacturer (include address and telephone number).

(7) Condition of disposal item and its container.

f. USAEC, Compliance.

g. ACSIM, Facilities Policy Division.

h. EPA RCRA, Superfund & EPCRA Hotline, 1-800-424-9346; in the DC area, call 703-412-9810.

i. DLA Hazardous Technical Information Services (HTIS), 1-800-848-HTIS.

j. National Response Center, 1-800-424-8802.

k. Department of Transportation (DOT) HAZMAT Hotline, 1-800-467-4922.

4-8. Emergency Planning and Community Right-to-Know Act

This paragraph outlines the procedures necessary to meet the Emergency Planning and Community Right-to-Know Act (EPCRA), EO 12856, and AR 200-1, paragraph 4-6.

a. *Key concepts.* There are two key concepts in understanding EPCRA as follows:

(1) EPCRA's intent is to inform the public.

(2) A facility has four reporting requirements that are defined, in part, by both common and separate hazardous substance lists and exemptions—

(a) Emergency planning (sections 301-303).

(b) Emergency notification (section 304).

(c) Community right-to-know (sections 311-312).

(d) Toxic chemical release inventory (section 313).

b. *Procedures for managing hazardous substance information.*

(1) The Emergency Planning and Emergency Notification sections of EPCRA (sections 301-304) require a report that only needs to be updated as warranted by a change in conditions.

(2) Section 312 is an annual requirement, due 1 March, if chemical thresholds are exceeded. In order to provide information required under EPCRA and EO 12856, a facility needs to inventory hazardous substances located on the facility, process the information into reports, and then forward them to involved parties on and off the facility.

(3) HSMS is a DOD-sponsored, automated system for supporting hazardous substance management under EPCRA and EO 12856, as well as other safety and environmental risk areas. Currently, facilities using other automation products and services provided by internal staff or private enterprises must plan to transition to HSMS.

c. *Report preparation.*

(1) EPCRA reports, particularly the annual toxic chemical release reports, are complex and require substantial effort. A major part of this preparation is applying instructions, including DOD-specific exemptions, for counting hazardous substances and their components. In some cases, the process involves choosing among counting options.

(2) EPA guidance for report preparation appears in 40 CFR 372, which establishes the requirement for the particular report. In addition, EPA publishes annual instructions (Toxic Chemical Release Inventory Report Form R and Instructions) for preparing the annual toxic chemical release report in January of each calendar year (CY).

(3) The Deputy Undersecretary of Defense (Environmental Security) (DUSD(ES)) published guidance concerning EPCRA and EO 12856 in March 1995 and supplemental guidance in July 1996. This guidance identifies the exemptions applying to all the services.

(4) Specific guidance for EPCRA reports includes the following:

(a) *Emergency planning.* The emergency planning requirement originates in sections 301-303 of EPCRA. Refer to the EPA published report requirements in 40 CFR 355.

(b) *Emergency notification.* The emergency notification requirement originates in section 304 of EPCRA. Refer to the EPA published report requirements in 40 CFR 355.

(c) *Community right-to-know reporting.* The community right-to-know reporting requirement originates in sections 311 and 312 of EPCRA. Refer to the EPA published report requirements in 40 CFR 370.

(d) *Toxic chemical release inventory reporting.* The toxic chemical release inventory reporting requirement originates in section 313 of EPCRA. Refer to the EPA published report requirements in 40 CFR 372. HQDA requires that facilities forward an information copy of the report to USAEC by the reporting deadline (1 July) each year.

d. *Procurement of support services.* Assistance with the EPCRA and EO 12856 requirements is available from private enterprises through USACE or USACHPPM. Services may be procured directly by the facility or through a USACE district with environmental support expertise. Private enterprises have provided EPCRA services to the public since 1987.

e. *Resources.* Facilities identify funding requirements for EPCRA and EO 12856 activities by means of the EPR Report/FEDPLAN (CW) process. Often funding requirements interrelate with efforts to establish an automated hazardous substance inventory system and P2 initiatives. Requirements should identify fully the appropriate priorities for and relationship between each aspect. For many facilities, an automated inventory system is necessary to prepare a report and, therefore, could have a priority as high as the report preparation.

4-9. EPCRA technical assistance

Installations and MACOMs may obtain technical assistance on EPCRA and EO 12856 from the sources below. Managers at CWFs should consult their environmental compliance coordinator network for sources of technical assistance. (See app B for mailing addresses and Web sites.)

a. ODEP, P2.

b. USAEC, P2.

c. USACHPPM, Air Program.

d. Environmental Awareness Resource Center (EARC), formerly the Environmental Training Support Center (ETSC). The EARC provides information on available training and awareness courses and products, including videotapes.

Chapter 5 Hazardous and Solid Waste Management

5-1. Scope

This chapter outlines the procedures to meet the objectives of AR 200-1, chapter 5.

5-2. Hazardous waste management

a. *Planning.* CW guidance is in EP 200-2-3. While AR 200-1 no longer requires a formal, IC-approved Hazardous Waste Management Plan, careful planning is still needed to assure proper management of HW throughout the installation. HW planning includes the following:

(1) Local policies, operating procedures, and guidance to all installation units, tenants, and activities that generate or manage HW.

(2) Responsibilities of installation organizations and personnel when generating, transporting, treating, storing, and disposing of HW.

(3) Responsibilities of subinstallations and other supported facilities when generating, transporting, treating, storing, and disposing of HW.

(4) Procedures for performing and documenting results of HW characterizations or generator knowledge used to characterize the waste. Improper waste characterization is a common source of noncompliance.

(5) Documentation of EPA generator status (large quantity, small quantity, or conditionally exempt small quantity generator (CESQG)) and EPA identification numbers.

(6) Type, location, and quantity of HW for each HW-generating activity, including tenants.

(7) Location of all HW storage, treatment, and disposal units. These include satellite accumulation points, HW accumulation areas, and RCRA permitted TSDFs.

(8) Handling procedures for treatment, storage, disposal, or transportation on- and off-post, including permit and DRMO requirements.

(9) An environmental inspection program to detect and correct conditions that may lead to noncompliance, a release, or threat to human health and/or the environment. The program should include routine HW compliance inspections by the installation environmental office and checklists for use by on-site managers, such as the unit environmental compliance officer.

(10) A HW training program, including RCRA, Occupational Safety and Health Administration (OSHA), and spill response training (see additional information at para 15-13g). The program should include training for routine HW compliance inspections by the installation environmental office and checklists for use by on-site managers, such as the unit environmental compliance officer.

(11) Emergency procedures consistent with installation spill planning (see chapter 3).

(12) Contingency procedures to treat, store, and dispose of HW on a temporary basis if existing facilities or contracts are unavailable. Identify temporary storage facilities, alternate disposal sites, and related procedures.

(13) Directory of applicable state and Federal regulatory agencies, including points of contact (POCs) and telephone numbers.

b. Installation HW inventory. Each installation or Army facility generating HW will maintain an annual inventory of HW for meeting reporting requirements and to support the installation P2 program. This inventory covers waste that is generated, treated, stored, disposed, or transported off-site by the installation and supporting facilities. For large quantity generators, this inventory will be consistent with and support the HW biennial report requirement of 40 CFR 262.41. This inventory will be certified by the IC or authorized designee and will—

(1) Identify HW generators, locations, processes generating the waste, and applicable EPA waste codes.

(2) Measure or estimate the amount of each HW generated by each process.

c. HW permits.

(1) The Army's policy is to reduce the need for RCRA permitted TSDFs as much as possible. To accomplish this, each installation requesting a new permit or permit renewal for an HW TSDF must fully justify the request and obtain approval from HQDA (DAIM-ED) prior to permit application or construction. This approval authority may be delegated to MACOMs, but copies of all justifications must be forwarded to HQDA in accordance with the instruction in paragraph 5-2c(2) below. Permit justifications and requests for approval must address the following topics:

(a) Discussion of why the installation needs the permit. This discussion should describe the mission activity that requires managing HW at a RCRA TSDF, and any external forces that contribute to the need for a RCRA permit.

(b) Discussion of alternative facilities that could meet the waste management need. The discussion must address suitable or cost-effective facilities at other nearby DOD installations, sites, or facilities. For HW storage facilities, the discussion must address why the installation cannot operate using nonpermitted facilities, such as less than 90-day storage facilities.

(c) Discussion of the feasibility of accepting off-site wastes from other DOD facilities. Include discussion of the design capacity of the facility and any regulatory or permit limitations for acceptance of wastes from off-site.

(d) Documentation that all life-cycle environmental compliance costs have been considered including permitting, closure, post-closure maintenance, and monitoring costs. Include a current cost estimate and give reference to supporting EPR projects (include number), if any. This should not be construed as a requirement to enter EPR projects for closure and post-closure if there are no plans to close the TSDF.

(e) Documentation that National Environmental Policy Act (NEPA)-type analysis has been done when required by AR 200-1, AR 200-2, AR 210-20, AR 415-15, or National Guard Regulation 415-15.

(f) Brief description of the Solid Waste Management Units (SWMUs) that are associated with this permit action and funding account used (environmental restoration, Army (ER,A) or compliance). Discuss whether corrective actions could be avoided if you do not pursue this permit.

(g) Approval of the IC.

(2) Installations must forward their justifications and requests for approval through command channels to HQDA early in the process of seeking a permit or permit renewal. For permit renewals, the request should be submitted at least 1 year prior to the permit expiration date. For new permits, the request should be forwarded as soon as the decision is made that a permit is needed and at least 60 days prior to submitting your request to your regulator. MACOMs must forward copies of the justifications to USAEC, Compliance Branch, ATTN: SFIM-AEC-EQC, Aberdeen Proving Ground, MD 21010-5401.

d. Transportation of HWs.

(1) HWs must be transported in accordance with DOD 4500.9-R, chapter 204 that addresses transportation of HAZMATs and the applicability of DOT regulations (49 CFR) when transporting HAZMATs.

(2) Transportation of HW from Reserve and Guard facilities.

(a) Facility managers/commanders (and/or their appointed/authorized "designee" with the mandatory regulatory

compliance training and knowledge) of supported small quantity generator (SQG)/CESQG off-post facilities will sign manifests for their facility after coordination and review by the IC (and/or their appointed/authorized supervisory “designee”). Review can be accomplished by telephone or fax. A copy of the completed manifest and supporting documents will be forwarded to the Reserve support command (RSC) or TAG’s designated office.

(b) Transportation records will be kept at each facility that generates HW and is staffed during normal business hours. Records for facilities not normally staffed during normal business hours will be maintained at the RSC or the State Adjutant General’s (AG’s) designated/environmental office, with a notice provided at the generating site listing a POC and location where records may be inspected. In addition to records pertaining to individual HW shipments, records must include pertinent training records required by DOT and pertinent HW regulations.

e. Disposal of HW.

(1) *Minimization options.* The installation EC will recommend to the IC the most cost-effective and efficient means of recycling, recovering energy, and reducing, treating, or disposing of toxics through DRMO. These recommendations will be consistent with applicable regulations. Priority will be given to on-site recycling, energy recovery, or treatment methods.

(2) *DRMS.* The DOD and Army policy is to use the Defense Reutilization and Marketing Service (DRMS) for the disposal of HW. Army installations will dispose of HW in accordance with DOD 4160.21-M.

(a) Installations must attempt to resolve waste disposal problems with their DRMOs through the MACOM chain of command and the DRMS. A process for resolution of HW disposal problems is outlined in appendix C, paragraph C-1.

(b) A request not to use the DRMS for HW disposal may be considered in cases where the installation has been unable to resolve problems with their DRMO or where the DRMO is unable to perform the disposal mission in compliance with RCRA. The request must be approved by MACOMs and justification must be forwarded to HQDA(DAIM-ED-C). This process is outlined in appendix C, paragraph C-2.

(3) *Installation HW disposal responsibilities.*

(a) Ensure that all HW disposal contracts adhere to the contract standards at attachment 2 of DOD 4160.21-M and in appendix C, paragraph C-4 of this DA PAM.

(b) Advise the DRMO of any change in disposal procedures to be sure there is no breach of an existing contract.

(c) Select disposal or treatment practices that reduce generation, land disposal, and incineration of HWs (see also para b above).

(d) Develop an execution plan providing sufficient resources to properly administer the contract.

(e) Ensure contracts include provisions for waste recycling when markets exist; disposal of spill cleanup or corrective action residues; waste analysis, labeling, packaging, and transport; and audits of the TSDFs accepting the installation’s HW.

(f) Ensure that all contracts for waste disposal are reviewed by the installation EC, legal officer, safety officer, and contracting officer, and approved by the IC.

(g) Where feasible, minimize the generation of quantities of HW through resource recovery, recycling, and/or source separation, and eliminate the use of HW through nonhazardous substitutes and acquisition policies.

(h) Provide all available information to DRMS, as required, to complete environmental documentation such as environmental impact statements (EISs) associated with disposal.

(i) Identify known hazards contained in property (especially when turned in for demilitarization (DEMIL) or as scrap), regardless of condition, that meet the definition of HAZMATs (such as mercury switches, PCB capacitors, batteries, asbestos, radioactive components, etc.) and contained fluids (such as oils, cooling fluids, etc.) that could create conditions that are hazardous to human health and the environment.

(j) Properly identify, package, label, and certify conformance with established environmental, safety, and transportation criteria (29 CFR, 40 CFR, and 49 CFR, host nation or international transportation regulations, and International Maritime Dangerous Goods (IMDG) guide) before transporting HW in commerce.

(k) Alert DRMS to any local situation that could impact HW disposal.

(l) Allow DRMOs to receive and store hazardous property, both HAZMATs and HW, from off-site DOD generators, consistent with the DOD concept of providing regional storage and disposal capability for DOD activities (within the authority of storage permits/applications existing on the issuance date of this pamphlet).

(m) Provide for disposal of the following categories of regulated property:

1. Toxicological, biological, and radiological materials and lethal chemical warfare materials that, by U.S. law, must be destroyed. Once the appropriate destructive actions are taken to meet the military regulations, the by-products may then be turned in to the servicing DRMO.

2. Material that cannot be disposed of in its present form due to military regulations such as ammunition, explosives and/or dangerous articles (AEDA) and controlled medical items. This category includes those instances where military regulations require the obliteration of all markings that could relate excess material to its operational program. Once the appropriate actions are taken to meet the military regulation, the resulting material should then be turned in to the servicing DRMO.

3. DLA/DRMS HW disposal contracts do not cover the disposal of ammunition, explosives, or explosive materials

or wastes as defined in the Bureau of Alcohol, Tobacco, and Firearms (27 CFR), the DOT (subpart C of 49 CFR 173), or the Defense Federal Acquisition Regulation (FAR) Supplement (paras 252.223-7002 (a)(1) and (2)(i), (iii), (v), and (vi)).

4. Disposal of contractor generated HAZMAT or HW is the contractor's responsibility. The EPA identification number holder (normally the IC) must ensure appropriate control of these materials or wastes is maintained and ensure they are transported and disposed of in compliance with applicable environmental laws and regulations.

5. Refuse and other discarded material that result from mining, dredging, construction, and demolition operations. However, residue from construction and demolition that meets the regulatory definition of hazardous debris may be turned in to the servicing DRMO for disposal on service contracts.

6. Unique wastes and residues of a nonrecurring nature generated by research and development (R&D) and experimental programs that are outside the scope of DLA service contracts.

7. Infectious medical waste or, for overseas, medical waste regulated by the host nation and under FGS guidelines, including hospital generated infectious waste generated in the diagnosis, treatment (for example, provision of medical services), or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals.

8. Radioactive mixed wastes that satisfy the definition of radioactive waste subject to the Atomic Energy Act and also contain waste that is either listed as an HW in 40 CFR 261, subpart D, or that exhibit any of the HW characteristics identified in 40 CFR 261, subpart C.

(n) Provide funding for service contract disposal of HW or for special requirements or services requested on the DLA disposal service contract.

(o) Provide funding for special generator fees levied by states on specific waste streams generated in the state levying the fee, or other state generator fees, as may be required by law and as approved by the installation environmental attorney.

(p) Notify and coordinate with DLA/DRMS, prior to taking action on any regulatory findings and/or payment of fees or penalties, HW disposal on DLA disposal contracts.

(q) Identify disposal requirements to the DRMOs as early as possible.

(4) The DRMS/DRMO responsibilities are detailed in DOD 4160.21-M.

f. *RCRA Biennial Report.* Army installations must submit a copy of their RCRA Biennial Report as mentioned in paragraph b above, to their MACOM at the same time they submit it to their HW regulator. MACOMs will forward a single copy of these reports to USAEC, ATTN: SFIM-AEC-EQC. In April of even-numbered years, the USAEC will enter the data into an Army-wide database and provide MACOMs their data. This database is very helpful in targeting P2 initiatives and determining where and how new HW rulemakings will impact the Army.

5-3. Waste minimization

Installations must include waste minimization in their Integrated Solid Waste Management (ISWM) and P2 Plans. (For guidance, refer to AR 200-1, para 5-10, and paras 5-9 and 10-3 of this publication.)

5-4. Military munitions

a. *Guidance.* This paragraph expands upon the Conventional Explosive Ordnance Operations (see AR 200-1, para 5-5) and provides guidance that supersedes the Deputy Assistant Secretary of the Army for Environment, Safety, and Occupational Health (DASA(ESOH)) Memorandum referred to in AR 200-1.

b. *Federal regulation.* The EPA published the final Military Munitions Rule (62 FR 6621) on 12 February 1997. The rule identifies when conventional and chemical military munitions become HW subject to regulation under the RCRA. The Rule became effective 12 August 1997.

(1) *Definitions.*

(a) *When munitions are not solid waste.* Military munitions are not solid waste when used for their intended purpose, including use in training military personnel or explosives and munitions emergency response specialists; use in research, development, testing, and evaluation (RDT&E) activities; or when recovered, collected, destroyed, or treated on-range during range clearance activities at active or inactive ranges. Unused munitions, or subcomponents thereof, are not a waste when being repaired, reused, recycled, reclaimed, disassembled, reconfigured, or otherwise subject to materials recovery activities.

(b) *When munitions are solid wastes.* Unused military munitions are solid wastes when abandoned by being disposed of, burned, incinerated, or treated prior to disposal; removed from storage for the purpose of being disposed of, burned, incinerated, or treated prior to disposal; deteriorated or damaged beyond repair, recycling, or reuse; or declared wastes by an authorized military official. Used military munitions are wastes when transported off-range for purposes of treatment (but not recycling), disposal, or treatment prior to disposal; when recovered, collected, and disposed of by burial, land filling, or land treatment on- or off-range; or if the munition lands off-range and is not promptly rendered safe and/or retrieved.

(2) *Closed, transferred, and transferring ranges.* EPA has postponed final action on whether military munitions on closed, transferred, or transferring ranges are solid wastes until DOD issues its Range Rule. The proposed DOD Range

Rule, which was submitted to the Office of Management and Budget (OMB) in June 1997, sets forth a process for addressing unexploded ordnance (UXO) and other contaminants at these ranges.

(3) *Storage.* Waste military munitions may be stored under the new subpart EE standards (40 CFR 264 and 265) or under a conditional exemption (CE). The CE exempts military munitions from RCRA storage requirements if certain conditions are met. The CE is only available to waste military munitions stored in states that have adopted this provision of the Military Munitions Rule. Installations should request assistance from their regional EC to determine their state's adoption status. For munitions to qualify for the exemption, they must not be chemical munitions, and they must be subject to the jurisdiction of the Department of Defense Explosives Safety Board (DDESB), stored in accordance with the DDESB's standards (no waivers are allowed), stored in units identified to regulators, and inventoried annually and inspected quarterly. Certain reporting and notification requirements also apply. (For more information, see DA PAM 385-64).

(4) *Transportation.* A CE also exists for the transportation of nonchemical munitions. The CE is only available to waste military munitions transported in states that have adopted this provision of the Military Munitions Rule. Installations should request assistance from their regional EC to determine their state's adoption status. A RCRA manifest is not required for shipments of CE waste nonchemical munitions between military facilities if shipments comply with DOD shipping controls, including the use of specific forms. Reporting and notification requirements also apply. In addition, marking and manifesting requirements have been eliminated for HWs that are transported on a public or private right-of-way within or along the border of contiguous properties under the control of the same person. However, DOT marking and shipping paper requirements may still be required. Thus, military generators may transport HWs from one area of an installation to another by using a public highway that passes through the installation.

(5) *Emergency response.* Emergency response personnel are exempted from RCRA generator, transporter, and full permit requirements. A RCRA emergency permit is required in those cases where the emergency does not pose an immediate threat and can be delayed without compromising safety or increasing the risk to life, property, health, or the environment. Records of the actions taken must be maintained for 3 years.

(6) *Permit modifications.* The Military Munitions Rule allows a grace period during which DOD facilities may seek modifications of their permit to remove off-site waste restrictions that might bar receipt of newly defined waste munitions. A permittee may continue to accept waste military munitions despite an off-site waste restriction if—

(a) The facility was already permitted to handle waste military munitions; and

(b) The permittee submitted a Class 1-modification request to remove the restriction on or before the Military Munitions Rule became effective in the state.

c. *State regulations.* The Military Munitions Rule adopts the traditional RCRA approach to state authority. Accordingly, states may adopt more stringent requirements for military munitions than the Federal requirements. It may take several years for states to finalize their regulations on how they plan to manage waste military munitions. Pending state adoption of the Federal Military Munitions Rule or state promulgation of more stringent requirements, installations will meet the minimum standards of the Federal Military Munitions Rule. In situations where compliance with state specific requirements affects explosives safety, installations will immediately notify their chain of command for resolution.

d. *DOD policy.* In an effort to ensure consistent interpretation and implementation of the EPA Military Munitions Rule, a joint service Munitions Rule Implementation Council developed a DOD Policy for Implementation of the EPA Military Munitions Rule, released by the Deputy Chief of Staff for Logistics (DCSLOG) on 3 September 1998.

5-5. Chemical warfare agents

The technical and procedural requirements for chemical warfare agents are contained in AR 50-6, AR 385-61, and DA PAM 50-6.

5-6. Pesticides

(For specific guidance, see AR 420-76.)

5-7. Medical, dental, and veterinary supplies and health care facilities

The technical and procedural requirements for medical, dental, and veterinary supplies and health care facilities are contained in AR 40-5, AR 40-61, AR 190-51, and USACHPPM TG 190. The Military Item Disposal Instruction (MIDI) system can be used for guidance on disposal of a wide variety of military items. (For further information on the MIDI system, contact USACHPPM.)

5-8. Resource Conservation and Recovery Act and the National Environmental Policy Act

(For specific requirements and guidance, see AR 200-2 and ER 200-2-2.)

5-9. Solid waste management

Solid waste is municipal-type garbage, trash, and refuse resulting from residential, institutional, commercial, agricultural, and community activities, which can be disposed of in a state or locally permitted sanitary landfill, regulated as a solid waste under subtitle D of the RCRA and overseas by host nation laws and regulations and the implementing FGS

for the host nation. Installation Solid Waste Management programs will be conducted in accordance with AR 200-1, chapter 5, and AR 420-49. CWF can adapt this guidance to their facilities and operations, as appropriate.

a. References. Technical and procedural requirements for the solid waste management program are contained in EPA 530-R-95-023, PWTB 420-46-08, PWTB 420-47-03, PWTB 420-47-05, PWTB 420-47-06, PWTB 420-47-07, PWTB 420-49-07, TM 5-634, EPA 530-R-95-023, USACHPPM TG 197, 60 FR 21386, 62 FR 219, and 63 FR 165.

b. Integrated Solid Waste Management Plans (ISWMPs). Each installation must have an ISWMP in accordance with AR 420-49 that clearly states the purpose of the plan, program objectives, and applicable Federal, state, local, and Army regulatory standards/criteria. Guidance on preparing ISWMPs is provided in USACHPPM TG 197. The plan will define and document the current installation's Solid Waste Management Program, set goals for improving solid waste management practice to include source reduction and affirmative procurement, and specify strategies to achieve those goals. The scope of the ISWMP will include, but is not limited to, assignment of responsibilities; waste characterization; reduction of waste generation; waste stream diversion by reuse, recycling, and composting; collection and storage methods; and disposal by incineration and landfill. Reduction of waste generation (source reduction) is the most favored alternative. Overall ISWMP objectives, as well as detailed considerations that should be addressed for each of the program elements listed above, are also provided in USACHPPM TG 197. Including all of the details regarding ISWM planning is beyond the scope of this pamphlet.

c. Source reduction. Strategies for source reduction should be given the highest priority in managing solid wastes. Each installation must implement source reduction practices in accordance with AR 420-49. Practices may include procurement programs, innovative buying policies, P2, material reuse, donation, process alterations, and MP that minimize waste generation. More detailed practices are provided in EPA 530-R-95-023 and USACHPPM TG 197.

d. Affirmative procurement. Installations are required to purchase certain products with recovered materials as specified in the Comprehensive Procurement Guidelines and the Recovered Materials Advisory notices (62 FR 219, 13 Nov 1997, and 63 FR 165, 26 Aug 1998).

e. Recycling.

(1) To meet the DOD Pollution Prevention Measure of Merit, each installation must establish or expand an installation-recycling program in accordance with AR 420-49. Installations are encouraged to operate qualified recycling programs (QRPs). However, alternatively structured programs can be used where a QRP is not the best option. Installations must evaluate the economic feasibility of participating in cooperative ventures with state, local, regional, or private sector systems.

(2) The DLA is charged with the sale of recyclable materials generated from military services through the DRMO. Installations with QRPs are encouraged to consider the use of the direct sales authority provided for in current DA policy. Installations may sell their recyclables directly rather than through the DRMS/DRMO if—

(a) Direct sales are expected to result in increased proceeds, net of cost, increased efficiency or cost effectiveness; or

(b) The sale of the material will result in the direct return of a usable product containing that material. Note that host nation laws and/or regulations may prohibit or restrict the direct sales of U.S. government excess property to third party interests.

(3) The Army requires QRPs that directly sell fired brass and authorized range cleanup to have personnel, who are trained in the identification and recognition of AEDA, inspect such material for compliance with DODI 4715.4 and DUSD(ES) implementation guidance. Attendance at the Corps of Engineers Professional Development Support Center (PDSC) Huntsville Qualified Recycling (AEDA) Training (Prospect Course #444) fulfills this requirement.

f. Composting. In accordance with AR 420-49, installations must consider composting as a management option for grounds keeping wastes. Backyard composting guidance and equipment should be made available to on-post residents.

g. Disposal.

(1) Installations should minimize the use of Army-operated landfills and solid waste disposal facilities. Army installations will evaluate cost effectiveness and feasibility of obtaining solid waste disposal services from municipal systems, regional cooperative entities, or the private sector. A life cycle cost analysis will be conducted to examine the cost effectiveness in accordance with AR 420-49.

(2) Installations are responsible for permit applications and renewals, operation and maintenance, and closure of Army-owned landfills. Army landfills are subject to state and local environmental standards and to 40 CFR 258, RCRA subtitle D. The Federal role is to establish the overall regulatory direction, but the actual planning and implementation of solid waste programs under subtitle D is largely a state and local function. Therefore, permitting and other requirements (that is, design and operating criteria, environmental monitoring, and closure/post-closure) associated with landfill operation should be coordinated with state and local solid waste regulatory officials.

h. Construction and demolition (C&D) waste management.

(1) Interim policy for C&D waste management (60 FR 21386, 1 May 1995) requires installations to initiate formal C&D waste management programs. The program objective is to ensure that, to the extent practical and economically feasible, all materials demolished from existing structures and all waste materials generated during new construction are either salvaged for resale, salvaged for reuse, or appropriately recycled in lieu of disposal.

(2) Installations must follow the affirmative procurement requirements for construction materials with recycled content on all construction projects. (See para 10-2j for additional information on affirmative procurement.)

(3) In accordance with AR 420-49, C&D debris should be recycled when possible. C&D debris landfills may be located on Army installations where they are life cycle cost (LCC) effective. C&D debris disposal must meet the criteria of 40 CFR 257, which ensures protection of natural resources and human health. C&D debris landfills will be operated in accordance with applicable Federal and state regulations.

i. Reporting. Installations must report solid waste and recycling data through their MACOM to HQDA using the Solid Waste Annual Reporting (SWAR) system on a quarterly basis. The annual reporting dates are posted on the SWAR Web site (<http://www.htscm.com/Amcisa/Swar/001S/swar99001.htm>). C&D waste management programs and practice will also be reported using SWAR. Details on the reporting requirements are referenced in 60 FR 21386.

5-10. Funding Army solid waste and HW disposal

a. Solid and hazardous waste disposal is considered a routine cost of doing business. Installations, including OCONUS and CWF, will fund waste disposal. Solid waste disposal will not be funded with environmental funds, nor will projects for these costs be entered into the EPR Report/FEDPLAN. Only projects to upgrade solid waste disposal facilities to attain/maintain compliance with environmental standards will be entered into the EPR or funded with environmental funds.

b. Management of recycling is considered a routine cost of doing business. Recycling operation and manpower are not an environmental cost and should not be included in the EPR.

5-11. Resource Conservation and Recovery Act compliance

a. RCRA noncompliance issues and enforcement actions (ENFs) will be resolved as soon as possible after being identified, regardless of the information source or violation notice. All ENFs will be reported according to the procedures outlined in chapter 13.

b. Compliance regulations will be included in the internal control procedures.

c. If an alleged act or acts of noncompliance cannot be resolved informally, the IC or CW district commanders and their counterparts outside the district structure will enter into formal settlement negotiations. Where appropriate, ENFs will be resolved by negotiating and entering into a compliance agreement with the issuing regulatory agency.

(1) The IC will enter into agreements in good faith and achieve RCRA compliance as soon as possible. The IC will negotiate compliance agreements with realistic compliance schedules. To the extent practicable, the compliance agreements will be consistent with the DOD program and budget process. The IC will tailor language in the compliance agreements to prevent obligating funds in violation of the Anti-Deficiency Act, 31 USC 1341.

(2) The IC will determine if funds are available to execute the requirements of the Compliance Agreement during the negotiation process. If the funds are available, they will proceed immediately. If a current fiscal year (FY) funding shortfall is identified, the commander must submit a request for additional funds through resource management channels. If a funding shortfall is identified in a budget or program year, commanders will make sure adequate funds are requested. Military funds are requested in the installation/command budget request for input to the program objective memorandum (POM). If shortfalls occur, procedures in the compliance agreement for notifying the EPA and state officials will be followed. ICs will advise HQDA (DAIM-ED-F) of shortfalls in writing through command channels. The CW commanders will follow established budget procedures.

(3) The duty to comply with RCRA and most other environmental regulations is not altered by funding considerations. The duty to comply with the abatement of LBP in Federally-owned target housing, constructed prior to 1960, could be affected by funding considerations under the provisions of section 1013, Title X - Residential Lead-based Paint Hazard Reduction Act of 1992 (PL 102-550).

(4) Failure to achieve and maintain compliance could result in temporary restraining orders or injunctions, curtailments, fines, or imposed penalties.

(5) Commanders will make sure projects required to follow RCRA compliance agreements and consent orders are identified in the EPR Report.

(6) Installations and CWFs will use SARA, section 120, interagency agreement (IAG), to address both RCRA and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) investigations and remedial activities.

(7) MACOM and HQDA environmental legal services should be consulted early in all compliance agreement settlement negotiations with state and/or regional EPA regulators. Draft compliance agreements will be coordinated with HQDA, Office of the Judge Advocate General (OTJAG), ATTN: Department of the Army, Judge Advocate, Environmental Law (DAJA-EL) before signature by the IC. CWF Compliance Agreements will be forwarded to the Director of CW or his/her designee for signature.

(8) If a MACOM determines compliance cannot be achieved within the stipulated time frame, the MACOM will elevate negotiations to HQDA.

(9) In addition, U.S. Army Regional Environmental Offices, located in conjunction with EPA regions throughout the

country, are poised and ready to assist in facilitating any such negotiations between regulators and MACOMs/ installations, especially when communications between parties are difficult and/or conflict resolution is required.

5-12. Low-level and mixed radioactive waste

a. Definitions for the purpose of this paragraph.

(1) *Radioactive waste.* Solid, liquid, or gaseous material that contains radionuclides regulated under the Atomic Energy Act, as amended, or is of sufficient quantity to require an Army radiation authorization and is of negligible economic value considering the cost of recovery.

(2) *Radioactive waste, low-level.* Material the NRC classifies as low-level radioactive waste (LLRW) (see 10 CFR 62.2); waste not classified as high-level radioactive waste (spent nuclear fuel), as transuranic waste, or as uranium or thorium tailings and waste; and material acceptable for burial in a land disposal facility (10 CFR 61).

(3) *Mixed waste.* Any waste that contains both HW and radioactive materials and/or naturally occurring or accelerator produced radioactive material (NORM/NARM).

b. Functions.

(1) The installation EC ensures that local and state environmental regulatory requirements are being met.

(2) The installation radiation safety officer manages all aspects of the installation radiation safety program. This includes oversight of all radioactive waste generated on the installation, except that generated under authority of specific NRC licenses or Army radiation authorizations held by tenants.

(3) The Radioactive Waste Disposal Division of the U. S. Army Operations Support Command disposes all LLRW and mixed waste, except for that held for decay or released to the atmosphere or sanitary sewerage system. This organization is the DOD Executive Agency for LLRW disposal with responsibility for the packaging, transporting, processing, treating, and disposing of all LLRW and mixed waste in the DOD, except as noted in paragraph 4 below.

(4) USACE manages disposal of LLRW and mixed waste generated in environmental restoration projects, after coordinating with the DOD Executive Agency for LLRW.

(5) DRMOs are not authorized to dispose of LLRW and mixed waste.

c. Disposition of LLRW and mixed wastes.

(1) Do not dispose of LLRW or mixed waste by burial on Army property without specific approval from the DA and the NRC.

(2) Any unwanted radioactive material, except for that held for decay or released to the atmosphere or sanitary sewerage system, must be disposed of through the DOD Executive Agency or the USACE. Army generators must request disposition of LLRW and mixed waste, by letter, to the Safety/Radiation Waste Team, HQ U.S. Army Operations Support Command, ATTN: AMSOS-SF, 1 Rock Island Arsenal, Rock Island, IL 61299-6000. The telephone number for the Radioactive Waste Disposal Division is (309) 782-2933, DSN 793-2933.

(3) The Army LLRW Management Program funds disposition of LLRW and mixed waste that is not funded by other programs (for example, Environmental Restoration or Base Realignment and Closure (BRAC)).

(4) The requirements for LLRW disposition are defined in 10 CFR, NRC licenses, state legislation, interstate compact enabling legislation, and disposal site acceptance criteria. Characteristics of waste, such as amount and concentrations of radioactive materials, total quantity of radioactivity, isotopic composition, and chemical and physical nature must be known or closely estimated and documented for shipping and disposal forms as well as for accountability. Mixed waste disposition requirements include all LLRW requirements as well as 40 CFR requirements for HW.

(5) In accordance with Federal, DOD, and Army regulations, each generator of radioactive waste must keep accurate inventories of their unwanted radioactive materials. Since there are unique packaging requirements for LLRW, generators should avoid packing unwanted radioactive material unless absolutely necessary. If the generator must package the material, they must obtain packaging guidance from the disposal agent. The disposal agent must package the LLRW at the time of shipment.

d. Interim storage of LLRW and mixed wastes. Installations generating or accumulating LLRW must place such material in a secure storage area pending disposal. In most cases, LLRW storage areas require authorization by a NRC license or Army radiation authorization before they can be established and maintained. TM 3-261 provides guidance for selection of temporary storage areas. Generators must designate and locate radioactive waste storage areas to minimize unnecessary casual radiation exposure to personnel. These storage sites must be controlled and posted in accordance with 10 CFR. The generator must provide adequate security to prevent unauthorized access into the storage site or removal of these materials. The generator must provide appropriate monitoring and surveys in accordance with Federal, DOD, and Army regulations, licenses, and authorizations.

e. Radiological spills and contingencies. (See para 3-5.)

Chapter 6 Air Program

6-1. Scope

a. This chapter provides the basic guidance to assist Army installations and CWFs in meeting the goals set out in AR 200-1, chapter 6.

b. This guidance does not address all the regulatory requirements that an installation or CWF might be subject to under Federal, state, or local rules. It is essential for Army facilities to regularly consult with regulators and the technical assistance sources listed in paragraph 6-14 for current compliance requirements and guidance.

6-2. Air pollution emissions inventory

An air pollution emissions inventory identifies all the stationary sources of air pollution on an installation or CWF, permitted and unpermitted, and the type and amount of emissions from those sources. Inventories may also include mobile sources.

a. Federal requirements. The Clean Air Act Amendments of 1990 (CAAA) require certain sources to produce inventories of certain pollutants.

b. State requirements. Individual states are responsible for the implementation of the CAAA emission inventory requirements.

(1) Many states have developed emissions reporting requirements for nonattainment areas. In addition, some states have established requirements for attainment areas. State regulations may require that both stationary and mobile sources be inventoried. Some states require both potential and actual emissions be identified.

(2) State regulations may require that the IC sign the installation emission statements. ICs may not delegate this responsibility except as specified in AR 200-1, paragraph 1-27a(11). This certification is a legally binding affirmation that the inventory is an accurate and comprehensive document. CWFs will conform to all applicable CAA requirements. District commanders, and their counterparts outside the district structure, must ensure that emission inventories are accomplished as required.

(3) Communication with state agencies should be maintained to determine requirements and submission deadlines.

c. Emission inventory preparation. The preparation of an emissions inventory is described in USACHPPM's "Air Pollution Emission Inventory Protocol for Army Installations and Activities."

6-3. Construction permits

CAA construction permits must be obtained prior to the construction, installation, or modification of a source of air emissions. For example, a CAA construction permit may be required for construction or major modification of the installation's heating plant. Other sources that require construction permits are defined by Federal, state, and local CAA regulations. The following types of CAA construction permits may be required:

a. New source performance standards (NSPS). These Federal standards are stated in 40 CFR 60. They set emission standards for specified sources that are applicable nationwide. The regulations also include monitoring and reporting requirements. A proposed NSPS source must demonstrate the ability to meet these standards. Sources subject to NSPS are typically required to obtain construction and/or operating permits.

b. New source review (NSR). NSR is a construction permit review program for construction or modification of major air pollution sources. NSR has two major programs—

(1) *Prevention of Significant Deterioration (PSD) Program.* This program applies to construction or modification of major air pollution sources located in attainment areas (that is, areas that meet the National Ambient Air Quality Standards (NAAQS)). The PSD regulations are found in 40 CFR 52.21. If a project is subject to the PSD program, the installation will generally be required to—

(a) Submit a complex application, including a detailed review of the proposed operation with dispersion modeling and ambient air quality analysis. (See para d below for additional information on the application process.)

(b) Comply with strict emission control requirements (for example, use emission control equipment that meets the best available control technology (BACT) standards).

(c) Provide for emission offsets from other operations.

(2) *NSR Program.* This program applies to construction or modification of major air pollution sources located in nonattainment areas (that is, areas that do not meet the NAAQS). The NSR Program regulations are found in 40 CFR 51, and the specific State Implementation Plan (SIP). If a project is subject to the NSR Program, the installation will generally be required to—

(a) Submit a complex application, including a detailed review of the proposed operation with dispersion modeling and ambient air quality analysis. (See para 6-3d for additional information on the application process.)

(b) Comply with strict emission control requirements (for example, use emission control equipment that meets the "lowest achievable emission rate" (LAER) standards).

(c) Provide for emission offsets from other operations.

c. State and local programs. Many state and local programs have been delegated authority to implement the

federally required permit reviews described in (1) and (2) (a) through (c) above. In addition, state and local authorities may require permitting for smaller sources or sources of particular concern in their jurisdiction. State and local regulations must be consulted to determine applicability.

d. Applications. Applications for construction permits can be complex.

(1) In general, applications will include ownership information and a description of the site, proposed construction, how the source will operate (including estimates of emissions), and any air pollution control measures associated with the source.

(2) For new major sources, ambient air monitoring data may be required. Preparation of a construction permit application can take 1 month to 2 years, depending on the complexity of the proposed source. Similarly, review by the regulatory authority can also exceed 1 year. Many permitting actions include a public review period that may include a public hearing.

e. Technical assistance.

(1) Army installations can obtain technical assistance in preparing applications and obtaining construction permits from USACHPPM or through a contractor. As implied by the time spread, costs for these tasks may vary widely.

(2) CWFs should contact their environmental compliance coordinator for information regarding technical assistance.

6-4. Operating permits (Federal)

The CAAA institutes a Federal Operating Permit Program, known as a “Title V permit” or a “Part 70 permit.” Major sources, as defined in 40 CFR 70, will be required to obtain an operating permit before they can engage in an operation that emits pollutants. Most installations will be required to obtain a Title V permit or opt out of certain requirements by restricting operations to a minor source level (for example, synthetic minor). Major sources may be determined by aggregating the total potential emissions from all of the emission points within the fence line. While this is a Federal program, states are required to write regulations that will implement the program in their respective states after EPA approval.

a. Permit applications. The applications required for these operating permits are complex. The information to be included ranges from a complete inventory of all emissions (including a description of each emission point) to a listing of all applicable regulations and how the source will maintain compliance with the regulations. These applications are costly and time consuming to prepare. Permits may be issued for a period of 1 to 5 years.

b. Fees. Although permits may be valid for as long as 5 years, an annual fee will be collected under this program. The fee may be based upon actual or potential emissions of the permitted source and may be charged for more than one pollutant per source. Consequently, fees have the potential to comprise substantial budget items that require planning.

c. Installation commanders. In most cases, the IC should be the CAA Title V “responsible official” who certifies as to the truth and completeness of the Title V permit application. There may be some situations that justify a deviation from this policy (for example, Government-owned, contractor-operated (GOCO) leased facilities, no on-site commander, etc.).

6-5. Operating permits (state)

Most states have programs that require major sources of air pollution to obtain an annual operating permit. This permitting process is often separate from the construction permit procedure. As the name indicates, this permit describes standards and limitations that apply during operation of an air emissions source. Stack tests are often required for these sources to demonstrate compliance. The State Operating Permit Program may apply to sources beyond the realm of the Federal Operating Permit Program or be applied to many of the same sources. It is important to know how states implement their various permitting authorities.

a. Applications. The application for an operating permit requires much of the same information as the construction permit application for the same source. Operating permit applications are open for public comment. Review of an initial state operating permit application can take 6 to 9 months. The permit is typically renewed annually.

b. Fees. As with the Federal operating permit, an annual fee is typically charged for the state-operating permit. An application fee may also apply.

6-6. Certification and training

a. Operators of air emission sources, such as solid waste incinerators, high-capacity fossil fuel fired plants, boilers, hazardous waste combustors, dunnage furnaces, medical waste incinerators, paint booths, and ozone depleting substance (ODS) removal, recovery, recycling, and disposal systems, will receive the necessary training and meet the operator certification requirements of the state in which they are located. The requirements may vary by state. Recordkeeping by the installation is typically required. Operators will meet the minimum system operator certification requirements that satisfy standards set by the EPA and all applicable state and local agencies.

b. Environmental offices and DPWs should determine the certifications needed and ensure only qualified personnel operate the equipment. State agencies should be able to assist with identifying training and certification requirements for specified equipment. Such requirements may also be stated in permits for the equipment.

c. Job descriptions for operators of air emission sources will require a state certification or license or the ability to obtain and maintain a license or certification per applicable regulations. Licensing and certification requirements should be incorporated in job standards for hiring actions. This can be accomplished through coordination with the local personnel office.

d. Announcements of vacancies for these positions will state the certification or licensing requirements.

e. Operator training will be met through programs sponsored by the DOD, EPA, and state regulatory agencies, state or regional health department or the local university or college of the state in which the facility is located.

f. In the absence of programs listed in paragraph e above, training will be held at qualified institutions designated by the respective MACOM.

6-7. Hazardous air pollutants

Title III of CAAA dramatically expands the Federal effort to control hazardous air pollutants (HAPs). The National Emission Standards for Hazardous Air Pollutants (NESHAPs) Program, established in 1970, only covered eight pollutants. Title III specifically lists 189 HAPs for which EPA must establish source lists and emission control standards. A major source, for purposes of Title III, is defined as a source that has the potential to emit 10 tons/year or more of an individual HAP, or 25 tons/year of any combination of HAPs.

a. *Applicability of control technologies.* Major sources under Title III are required to apply maximum achievable control technology (MACT) to reduce the HAP emissions. Depending on the rule, control may be required for nonmajor (area) sources as well. MACT for a new source (a source built after establishment of the applicable MACT standard) must attain the level of control achieved by the best-controlled sources. Existing sources (those built before the MACT standard is established) must apply HAP controls equal in performance to the average emission limit achieved by 12 percent of the best-controlled sources of the same type. If there are less than 30 sources in a category, the standard is set as the average emissions limit achieved by the best controlled five sources in the category. Deadlines for meeting the MACT standard are set within the individual source rules. Those deadlines must be within 3 years of the standard being established. Note that a control technology can be a process modification as well as a piece of equipment.

b. *Risk Management Plans (RMPs).* In addition to the 189 listed HAPs, EPA has finalized a list of 77 toxic chemicals and 66 flammables to be tracked for accidental release. Installations and CWFs, with processes that contain more than the threshold levels of chemicals as specified in applicable regulations, must develop RMPs to minimize the consequences of accidental chemical releases.

(1) An RMP must be developed and maintained if an installation or CWF produces, processes, handles, or stores more than the established threshold quantity of any of the compounds at any time in a covered process.

(2) RMPs must be developed by no later than one of the following dates. Individual states may impose shorter deadlines for plan preparation.

(a) 21 June 1999.

(b) Three years after the date on which a regulated substance is first listed under 40 CFR 68.130.

(c) The date on which a regulated substance is first present above a threshold quantity in a process.

(3) Installations must perform a self-assessment to determine the rule applicability (for example, No Impact, Program 1, Program 2, or Program 3).

(4) Public release of RMP information, in particular the Off-site Consequence Analysis, is limited under conditions of PL 106-40. EPA has proposed regulations to implement this law at 65 FR 24834. The comment period closed 8 June 2000.

6-8. Open burning and open detonation

a. *Purposes.* Open burning and open detonation (OB/OD) is used for a variety of purposes at an installation or CWF, including:

(1) OB/OD of propellant, explosives, or ordnance for waste disposal or training.

(2) OB for range, agricultural, or forest management.

(3) OB for firefighter training.

b. *Environmental regulations.* All of these activities are governed by one or more environmental regulations.

(1) OB/OD of waste explosives is regulated primarily by the RCRA. However, air emission data may also be required for emission inventories and a state or Federal air permit.

(2) State and local air quality control, natural resource management, or forestry authorities usually regulate OB for vegetation control and firefighter training. These OB activities are typically restricted by distance to occupied buildings, materials to be burned, and weather conditions.

c. *RCRA permit applications.* RCRA permits for OB/OD are detailed, comprehensive documents that require substantial research and evaluation of the proposed activity, projected control measures, and potential impacts on public health and the environment. RCRA permitting requirements are addressed in paragraph 5-2.

d. *Other OB permit applications.* These applications are generally simple descriptions of what is to be burned, how much is to be burned, and where and when the burning is to take place. A lead-time of 3 days to 2 weeks can be

expected for regulatory review. Fees for these permits are usually relatively small (less than \$100). Sometimes the fee is based on the amount of material or acreage to be burned.

e. Technical assistance. An OB application, as described in paragraph d above, can in many cases be prepared in-house through a collaboration of the requesting activity and the installation environmental office or CWF's environmental compliance coordinator. The regulatory agency may have special application forms that must be used.

6-9. Air pollution emergency plans

Air pollution emergency plans outline the actions to be taken should an air pollution emergency be declared by the regulatory agency. Such emergencies occur when pollutant concentrations combine with meteorological conditions to cause exceptionally poor ambient air quality.

a. State and local air quality or emergency management agencies will specify the requirements for air pollution emergency plans. Typically, they include a staged shutdown of air pollution sources until ambient conditions improve. Regular demonstrations of the installation's or CWF's ability to implement this plan may also be required.

b. Due to the nature of these plans, they are often maintained in cooperation with the installation or CW division or district emergency operations center.

6-10. Vehicle Inspection and Maintenance Programs

Vehicle Inspection and Maintenance Programs are implemented in areas where ground-level ozone or carbon monoxide exceeds the NAAQS (CAAA section 118(d)). These programs are also implemented in some particulate matter less than 10 microns (PM10) nonattainment areas. Federal regulations forbid operating vehicles that fail the locally required vehicle emissions inspection maintenance test. In ozone and carbon monoxide nonattainment zones, Federal regulations require that all nontactical vehicles operated on a military facility, including the vehicles of civilian employees and military personnel stationed on the military facility, show proof of passing the vehicle emissions inspection/maintenance test required in the area that includes the installation. Federal regulations require the IC to ensure that vehicles meeting any of the following requirements show proof of passing the vehicle emissions inspection/maintenance program required for the area in which the military facility is located:

a. Privately owned vehicles (POVs) of all military personnel stationed to and living on the post, including vehicles registered in other states.

b. POVs of all military personnel living off post, who are stationed to the post and that the military personnel uses on the post. This includes POVs registered in other states and POVs of military personnel living in areas with less stringent vehicle emissions/inspection requirements than are required in the area that includes the post.

c. POVs operated on the post by civilian employees of the post. This includes POVs registered in other states and POVs of civilian employees living in areas with less stringent vehicle emissions/inspection requirements than are required in the area that includes the post. The term "employees" does not include contract workers.

d. Fleet vehicles leased or owned by the post, including Government Services Administration (GSA) vehicles.

e. All other nontactical vehicles operated on post that are owned and operated by activities residing on that post, including GSA vehicles.

f. Tactical vehicles operated in PM10 nonattainment zones when the particulate matter control regulations for the area require tactical vehicles to pass a vehicle emissions inspection/maintenance test.

6-11. Ozone depleting substances

a. ODSs are chemicals that contribute to the deterioration of the ozone in the earth's upper atmosphere. The chemicals that contribute to this problem include chlorofluorocarbons (CFCs) and halons. A complete list of regulated ODS chemicals can be found in 40 CFR 82.

b. The Montreal Protocol of 1987 was established to limit the production and use of these chemicals. As production is phased out over the next several years, the availability of ODSs will diminish and the cost will increase.

c. Title VI of the CAAA establishes the goals of the Montreal Protocol as law in the U.S. Major requirements of Title VI that may impact installation activities include the following:

(1) Venting any ODS to the atmosphere in relation to repair, maintenance, or disposal activities is prohibited.

(2) Certified recovery and recycling equipment must be used to capture ODSs during servicing or disposal of air conditioning or refrigeration units.

(3) Personnel who maintain, repair, dispose, or reclaim air conditioning or refrigeration equipment that contains ODSs must be certified through an EPA-approved program.

(4) Sale of ODS refrigerants is restricted to certified technicians.

d. DOD has issued additional mandates and guidance to minimize emissions of ODSs.

(1) Secretary of Defense (SECDEF) issued DODI 4715.4, which implements EO 12843 and PL 102-484. These mandates prohibit the use of ODSs in contracts without certain procedures being followed and approvals being obtained.

(2) The Army Acquisition Pollution Prevention Support Office (AAPPSO) developed guidance to assist installations

in their efforts to prepare and maintain an ODS elimination plan. The guide is called “Guide to Preparing Ozone-Depleting Chemical Elimination Plans for Installations.”

(3) The Army’s approach to eliminating the use of ODSs is presented in 40 CFR 82.

(4) CWF guidance is in ER 200-2-3.

6–12. Trip reduction plans

The Army will develop trip reduction plans where required. Section 182 of CAAA allows states to require installations and CWFs, in areas classified as “Severe” or “Extreme” for ozone pollution, to implement programs to reduce work-related vehicle trips and miles traveled by employees. These plans will be locale-specific based on requirements developed by state agencies.

6–13. Conformity

a. Section 176(c) of CAAA prohibits the Army from engaging in, supporting, providing financial assistance for, licensing or permitting, or approving any activity that does not conform to an EPA-approved SIP or Federal Implementation Plan (FIP). Activities that do not conform to applicable SIPs or FIPs cannot proceed without an enforceable mitigation plan.

b. The CAA conformity requirement only applies in nonattainment and maintenance areas. Procedures for demonstrating conformity are contained in 40 CFR 51 and 40 CFR 93. Conformity determinations in accordance with these procedures may be complex and expensive to complete. These regulations require consultation with EPA and the state, public notice, and a comment period before completion of each conformity determination.

c. States are required to amend their SIPs to incorporate procedures for compliance with the Conformity Rule. Installations should be sure to check SIPs to ensure compliance with state requirements.

6–14. Technical assistance

Many sources of assistance are available, both within and outside the Army. EPA and state regulatory agencies can provide assistance in interpretation and applicability of their rules. This local contact is important since many air programs are instituted at the Federal level and implemented at the state level. Assistance in complying with these requirements is available in many forms within the Army. Installations and MACOMs may obtain technical assistance from the sources below. Managers at CWFs should consult their environmental compliance coordinator network for sources of technical assistance. (See app B for mailing addresses and Web sites.)

a. *ODEP, Compliance.* This office directs policy concerning response to regulatory and funding issues that have Army-wide impact.

b. *USAEC, Environmental Quality Division.* USAEC provides advisory support through the Environmental Response Line (Hotline, 1-800-USA-EVHL) and field guidance documents. Contractor services centrally managed by USAEC can provide products necessary for regulatory compliance, such as air emissions inventories and permit applications.

c. *USACHPPM, Air Programs.* These programs provide a wide range of services from consultations to fieldwork. Ambient air monitoring, stack testing, and air emissions inventories are some of the specific services available.

d. *USACE.* USACE Installation Support Center offers guidance in the use of ODS and ODS-substitutes for refrigeration and air conditioning systems. They also offer guidance concerning halon fire extinguishing systems, air conditioning, and refrigeration.

e. *USAMC.* USAMC is tasked with providing guidance on procurement of ODSs and the use of ODSs in weapons systems.

Chapter 7

Environmental Noise Management Program

7–1. Scope

This chapter outlines the procedures to meet the objectives of AR 200-1, chapter 7, at military installations. USACE will separately promulgate guidance for the Army CWFs.

7–2. Policy

a. The purpose of the Environmental Noise Management Plan (ENMP) is to minimize the impact of environmental noise on the public without impairing the mission of the installation.

b. The ENMP and policy is based on adverse impacts as indicated by objective noise levels. Complaints may be an indication of adverse impacts, but the correlation between objective noise levels and complaints is poor at best.

c. The primary strategy for noise management is being a responsible neighbor to surrounding communities. This includes educating both the military and civilian communities, managing noise complaints, mitigating the noise and vibration environments (consistent with mission), and coordinating with planning and zoning officials to maintain

compatible land uses (both on- and off-post). The installation EQCC plays a key role in ensuring these activities occur. For example, the EQCC will investigate and recommend mitigative actions for existing and proposed operations that have an impact, either on- or off-post; coordinate with the Real Property Planning Board to involve the public in the planning process; and assess the installation and off-installation activities for possible noise impacts.

d. AR 200-1, chapter 7, details noise sensitive land uses such as housing, schools, and medical facilities, which are compatible with the noise environment in Zone I, normally incompatible in Zone II, and incompatible in Zone III. The occurrence of isolated complaints from areas in compatible noise Zone I does not constitute an adverse impact. Conversely, the absence of complaints from areas in Zones II or III does not mean that an impact does not exist. However, as discussed in paragraph 7-4, complaints cannot be ignored.

7-3. Land use planning

a. Purpose.

(1) The primary strategy for protecting the mission of installations from the problems of noise incompatibility is long-range land use planning. Close coordination with the installation's master planning staff is needed when dealing with land use issues. The installation EQCC will also monitor land use development plans, programs, and projects in the areas on and adjacent to the installation for land use changes that are not compatible with the noise environment.

(2) Land use guidelines are meant to ensure compatibility with military operations, while allowing maximum beneficial use of the contiguous property. The DA has no desire to recommend land use regulations that render property economically useless. It does, however, have an obligation to the communities around the installations to point out ways to protect both the people in adjacent areas and the public's investment in the installation.

(3) Assistance in working with local, regional, and state planning agencies is available from the Office of the Secretary of Defense (OSD), Office of Economic Adjustment Joint Land Use Study (JLUS) Program. This program offers guidance and financial assistance to the installation's neighboring communities for the development of comprehensive zoning plans. To participate in the JLUS Program, the installation master planner should apply to their MACOM through the master planning channels, supplying a copy to the MACOM's environmental staff and training/operations staff.

b. Installation noise situation. Installations will maintain a current ENMP to include the following:

(1) Current noise contour maps of the installation's existing and projected future noise environment. The maps will show the noise environment from off-post sources that have significant impacts on-post, such as major highways and airports.

(2) Analysis of the noise sources and identification of those that create an impact.

(3) Analysis of land use compatibility problems (both on- and off-post) and solutions, which include the following:

(a) Identification of existing incompatible land uses within Annual Noise Zones II and III and Average Busy Day Zones II and III. An explanation of the use of average busy day Zone II for land use buffers is provided in paragraph 7-5c.

(b) Identification of projected incompatible land uses within Annual Noise Zones II and III and Average Busy Day Zones II and III.

(c) Identification of desirable land uses within Annual Noise Zones II and III and Average Busy Day Zones II and III.

(4) An education program for both the military and civilian communities.

(5) A program to manage noise complaints.

(6) A program to mitigate noise and vibration, when feasible, including a "Fly Neighborly" program and noise abatement procedures.

(7) A public involvement plan stating when and how the public will be informed and involved.

(8) Discussion of the installation's master plan, ensuring that existing and future facility locations are compatible with the noise environment.

(9) Memorandums of Understanding (MOUs) between the installation and the surrounding communities, if any, regarding land use controls and/or noise management.

7-4. Complaint management

a. Complaints must be handled in an efficient and courteous manner. If the complainant feels that they have been ignored or given what they feel is false information, they will elevate their concern to a higher level, including letters to local, state, and Federal government officials and formation of community action groups. These actions could have an adverse impact on the ability of the installation to perform its mission.

b. To be effective, the Complaint Management Program needs to complete, at a minimum, the following tasks:

(1) All complaints should be received at one location. The complaint phone number should be published and widely publicized.

(2) A log of all complaints will be maintained.

(3) All complaints should be investigated without delay. The complaints should be routed to the office responsible

for the type of activity that caused the complaint. The PAO will receive the response and provide the information to the complainant.

(4) The complainant should be informed of the installation's mission and assured that every effort will be made to correct the problem, mission permitting. The complainant will also be informed of the investigation's results.

(5) A copy of the complaint and the response should be provided to the EQCC, which will assist the PAO and the operation/unit/activity responsible for the complaint. The installation EQCC will review all noise complaints to determine if there are any patterns. For example, a weapon firing from one location at night can cause 90 percent of the complaints.

(6) The activity responsible for the complaint will identify the cause of the complaint and take appropriate action to correct the deficiency.

7-5. Noise assessment

a. Noise descriptors and analyses.

(1) The day-night average sound level (DNL) is the primary descriptor. The DNL is the 24-hour energy average sound level with a 10-decibel (dB) penalty added to the nighttime levels (2200 to 0700 hours). The annual and/or busy day average is used for all activities, except the ARNG and other part-time operations. For these cases, the average will be based on a busy period of operations, such as a training cycle.

(a) Noise from transportation sources such as vehicles and aircraft, and from continuous sources such as generators, will be assessed using the A-weighted day-night average sound level (ADNL).

(b) Impulsive noise resulting from armor, artillery, and demolition activities will be assessed in terms of the C-weighted day-night average sound level (CDNL).

(c) Noise from small arms activity will be assessed in terms of ADNL.

(2) The primary means of noise assessment will be through mathematical modeling and computer simulation. Noise maps will be prepared showing Noise Zones I, II, and III. A Geographical Information System (GIS) data layer of the Noise Zones will be created. This layer can be used when planning and siting proposed actions. The noise levels, which define these Noise Zones, are listed in table 7-1.

Table 7-1
Land use planning guidelines

| Noise zone | Noise limits | | |
|------------|---|--|--------------------------|
| | Transportation ADNL ¹ (dBA ³) | Impulsive CDNL ² (dBC ⁴) | Small arms ADNL (dBA) |
| I | Less than 65 | Less than 62 | Less than 65 |
| II | 65-75 | 62-70 | 65-75 |
| III | Greater than 75 | Greater than 70 | Greater than 75 |

Notes:

¹ The A-weighted day-night average sound level is abbreviated as ADNL and symbolized mathematically as LAdn (e.g., Ldn 65, Ldn 75, etc.).

² The C-weighted day-night average sound level is abbreviated as CDNL and symbolized mathematically as LCdn (e.g., Ldn 62, Ldn 70, etc.).

³ dBA - decibels, A-weighted.

⁴ dBC - decibels, C-weighted.

(3) Land use compatibility for noise-sensitive land uses is classified and defined in tables 7-2 and 7-3, located at the end of this chapter. Table 7-2 classifies noise levels into a set of noise zones according to the most commonly used environmental noise descriptor. The ADNL descriptor can be used for all noise sources except for detonation of explosives and weapons systems 20 millimeters (mm) and larger. These same land use compatibilities can be applied to the CDNL noise zones. The noise level reduction (NLR) techniques for large weapons systems have not been developed. Table 7-3 contains suggested land use compatibility guidelines. The table arrays land uses on the left with the noise zones of table 7-2 across the top.

(a) Land use compatibility is expressed as being compatible, compatible with restrictions, and incompatible.

(b) The system, as presented in table 7-3, is comprised of two digit categories that identify land use activity in the most generalized way (for example, residential). Within the categories are subcategories identifying activity in greater detail.

(c) Compatibility, as expressed in table 7-3, represents a consolidation of existing Federal agency guidelines. This table serves as a point of departure in making several kinds of determinations, including whether various land uses should be allowed at particular sites based upon the noise levels at those sites.

(d) Detailed planning should be based on the procedures and specific planning guidance found in appropriate Federal agency documents as well as the needs, desires, and site characteristics of a particular community.

b. Noise contour map development.

(1) The generation of noise contour maps requires accurate operational data, including numbers, locations, types, and times of noise-producing events.

(2) Contours will be produced for the existing operations and for projected future operations. Contours will also be produced when there is a change in operations.

(3) The operational data displayed in table 7-4 are required to generate noise contours.

(a) Installation GIS data layers (boundaries, roads, ranges, impact areas, airfields, housing areas (noise-sensitive, etc.) need to be provided for the development of noise contour overlays.

(b) To ensure accurate computer simulations, these operational data should be obtained from informed experts, such as the airfield operations or range control offices.

c. Land use planning buffers.

(1) The DNL noise contours, 62 CDNL and 65 ADNL, represent an annual average that separates the normally incompatible Noise Zone II from the compatible Noise Zone I. Taking all the operations that occur at an installation over the year and dividing by 365 days generates the contours. However, the noise environment at an installation varies daily and seasonally because operations are not consistent for all 365 days of the year. To provide a planning tool that could be used to account for days of higher than average operations, the Busy Day Zone II contour was developed. It can offer a better prediction of noise impacts when levels of operations are above average. For example, if operations are approximately three times more numerous than the normal daily flights, average noise levels increase approximately 5 dB. By setting the extent of the Busy Day Zone II contour at 57 CDNL and 60 ADNL, the variability can be accounted for in the installation's noise environment. The Busy Day Zone II can provide the installation with an adequate buffer for land use planning, and reduce conflicts between the installation noise-producing activities and the civilian community. It encompasses areas where, during periods of increased operations, community annoyance levels can reach those levels associated with Zone II. By using the Busy Day Zone II, 57 CDNL, and 60 ADNL, it provides the installation with a better means to predict possible complaints, and meet the public demand for a better description of what will exist during a period of increased operations.

(2) The DOD has a long-standing policy, since 1964, to assess environmental noise around military airfields (Air Force, Navy, and Marine) using the average busy day. This policy, predating the EPA 1974 recommendation, incorporated the annual average. Nevertheless, litigation and the requirement to respond to public comments under the NEPA have led to the Army supplementing the annual average with busy day analyses. Based on review of these legal precedents, recommendations are made for the use of both measures, each with a different purpose.

(3) The busy day is not so much a predictor of annoyance as it is a predictor of complaints. Analysis of noise complaints received by the Army has shown that short-term increases in DNL, not the long-term average, best predict complaints. In the absence of regulatory noise exposure standards, complaints have become the de facto standard. To our knowledge, there are no instances when a state or Federal regulatory authority has come to the Army with a notice of violation (NOV). At the same time, there are many instances when Army commanders have voluntarily curtailed noisy activities in order to reduce complaints. Through a formal ENMP, Army installations try to prevent complaints through self-monitoring of operations and support to land use planning efforts by local government.

(4) Whether the busy day should be used for land use planning is a difficult question. If the busy day is used to describe noise during times of reduced operations, then citizens receive a better description of what will exist during a period of increased operations. One of the roles of government is to provide its citizens with sufficient information to make intelligent decisions. The use of average busy day contours does provide the local community with additional information to make better-informed land use decisions.

d. Monitoring. Normally, on-site monitoring of noise environments should not be considered because of the large commitments of time and manpower required. On-site monitoring may be warranted when prediction models are not available, to resolve a specific noise complaint, or to verify noise levels that have produced major public controversy.

7-6. Technical assistance

Installations may obtain assistance with noise and vibration assessments, including monitoring and noise contour maps, from USACHPPM, Environmental Noise. USACHPPM will forward requirements for research to U.S. Army Construction Engineering Research Laboratories (USACERL) or other research facilities having expertise in the area.

Table 7–2
Noise zone classification

| Noise zone | ADNL | HUD ¹ noise standards |
|------------|--|----------------------------------|
| I | Not exceeding 55 ADNL Above 55 ADNL ² but not exceeding 65 ADNL Not exceeding 62 CDNL | Compatible |
| II | Above 65 ADNL but not exceeding 70 ADNL ³ Above 70 ADNL but not exceeding 75 ADNL Above 62 CDNL but not exceeding 70 CDNL | Normally Incompatible |
| III | Above 75 ADNL, 70 CDNL | Incompatible |

Notes:

¹ Department of Housing and Urban Development (HUD).

² HUD, DOT, and EPA recognize Ldn=55 dBA as a goal for noise levels outdoors in residential areas to protect public health and welfare within an adequate margin of safety; however, it is not a regulatory goal. It is a level defined by a negotiated scientific consensus without concern for economic and technological feasibility or the needs and desires of any particular community.

³ The HUD Noise Regulation allows a certain amount of flexibility for nonacoustic benefits in Zone II. Attenuation requirements can be waived for projects meeting special requirements.

Table 7–3
Suggested land use compatibility guidelines

| SLUCM No. | Land Use | Noise Zones/ADNL | | | | | | |
|-----------|--------------------------------------|------------------|----------------|-----------------|-----------------|-----------------|------------------|------------------|
| | | I 0-55 | I 55-65 | II 65-70 | II 70-75 | III 75-80 | III 80-85 | III 85+ |
| 10 | Residential (except mobile homes) | Y | Y ¹ | 25 ² | 30 ³ | N | N | N |
| | Mobile Homes | Y | Y ¹ | N | N | N | N | N |
| 20 | Manufacturing (except precision) | Y | Y | Y | Y ⁴ | Y ⁵ | Y ⁶ | N |
| 35 | Precision ⁷ | Y | Y | Y | 25 | 30 | N | N |
| 40 | Transportation | Y | Y | Y | Y ⁴ | Y ⁵ | Y ⁶ | N |
| | Communication | Y | Y | Y | 25 ⁸ | 30 ⁸ | N | N |
| | Utilities | Y | Y | Y | Y ⁴ | Y ⁵ | Y ⁶ | Y |
| 50 | Wholesale Trade | Y | Y | Y | Y ⁴ | Y ⁵ | Y ⁶ | N |
| | Retail Trade | Y | Y | Y | 25 | 30 | N | N |
| 60 | Services (except listed below) | Y | Y | Y | 25 | 30 | N | N |
| | Cemeteries | Y | Y | Y | Y ⁴ | Y ⁵ | Y ^{6,9} | Y ^{8,9} |
| | Hospitals, Nursing, Homes, Education | Y | Y ¹ | 25 ¹ | 30 ¹ | N | N | N |
| | Other Medical | Y | Y | Y | 25 | 30 | N | N |
| 70 | Cultural | Y | Y ¹ | 25 ¹ | 30 ¹ | N | N | N |
| | Entertainment (except outdoor music) | Y | Y | 25 | 30 | N | N | N |
| | Outdoor Music | Y | Y ¹ | N | N | N | N | N |
| | Recreational | Y | Y ¹ | Y ¹ | Y ¹ | N | N | N |
| 80 | Resource Production | Y | Y | Y ¹⁰ | Y ¹¹ | Y ¹² | Y ¹³ | Y ¹³ |
| | Livestock | Y | Y | Y ¹⁰ | Y ¹¹ | N | N | N |

Table 7-3
Suggested land use compatibility guidelines—Continued

| SLUCM Land Use No. | Noise Zones/ADNL | | | | | | |
|---------------------|------------------|------------|-------------|-------------|--------------|--------------|------------|
| | I 0-55 | I 55-65 | II 65-70 | II 70-75 | III 75-80 | III 80-85 | III 85+ |
| Resource Extraction | Y | Y | Y | Y | Y | Y | Y |

Legend for Table 7-3:

SLUCM - Standard Land Use Coding Manual, HUD, 1965.

Y (Yes) - Land use compatible without restrictions.

N (No) - Land use not compatible and should be prohibited.

NLR - NLR (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.

Y^x - Land use generally compatible with noted restrictions.

25, 30, or 35 - Land use generally compatible; measures to achieve NLR of 25, 30, or 35 must be incorporated into the design and construction of structures.

25^x, 30^x, or 35^x - Land use generally compatible to the NLR; however, measures to achieve an overall noise reduction do not necessarily solve noise difficulties and an additional evaluation is warranted.

Notes:

¹ The designation of these uses as "compatible" in this zone reflects an individual Federal agencies' consideration of general cost and feasibility factors as well as past community experiences and program objectives. Localities, when evaluating the application of these guidelines to specific situations, may have different concerns or goals to consider.

² Although local conditions may require residential use, it is discouraged in this zone. NLR criteria will not eliminate outdoor noise problems.

³ Although local conditions may require residential use, it is strongly discouraged in this zone. NLR criteria will not eliminate outdoor noise problems.

⁴ Measures to achieve NLR of 25 must be incorporated into the design and construction of portions of these buildings where the public is received (i.e., of-office areas, noise sensitive areas, or where the normal noise level is low).

⁵ Same as footnote 4 except measures to achieve NLR of 30 must be incorporated.

⁶ Same as footnote 4 except measures to achieve NLR of 35 must be incorporated.

⁷ Includes professional, scientific, and controlling instruments; photographic and optical goods; watches and clocks.

⁸ If noise sensitive use indicated, NLR; if not, the use is compatible.

⁹ Land use not recommended, but if the community decides the use is necessary, personnel should wear hearing protection devices.

¹⁰ Residential buildings require an NLR of 25.

¹¹ Residential buildings require an NLR of 30.

¹² Residential buildings not permitted.

¹³ Residential buildings not permitted. Land use not recommended, but if the community decides the use is necessary, personnel should wear hearing protection devices.

Table 7-4
Operations generating noise contours

| For this operation | Acquire the following information |
|--|--|
| Artillery, armor, and other weapon systems greater than 20 mm | <p>For each firing point (FP):</p> <ul style="list-style-type: none"> • Grid coordinates of the FP. • Types of weapons fired (for example, 155 mm howitzer). • Type of rounds fired and amount of propellant used to reach the target from each weapon (for example, high explosive, illumination, etc.). • Number of rounds by type fired from each weapon type during daytime (0700 - 2200) and nighttime (2200 - 0700) hours. • Grid coordinates of the impact area used. • Height of airburst (feet above ground), if any. |
| Demolitions (includes mines, artillery, and grenade simulators, mine clearing devices, etc.) | <p>For each demolition area:</p> <ul style="list-style-type: none"> • Grid coordinates of the demolition area. • Net explosive weight of explosives detonated at each area. • Burial depth for each explosive charge (feet). • Number of detonations by explosive weight during daytime and nighttime hours. |
| Aircraft operations (airfields, tactical air-strips, landing zones, and heliopads) | <p>For each aircraft operation area:</p> <ul style="list-style-type: none"> • Map (to scale) showing the flight tracks with altitudes above ground level (AGL). • Latitude and longitude of the end points at the center of each runway. • Elevation of airfield and the annual average temperature and humidity. • Number of aircraft by type, using each flight track during daytime (0700-2200) and nighttime (2200-0700) hours. |

Table 7-4
Operations generating noise contours—Continued

| For this operation | Acquire the following information |
|---|--|
| Aircraft operations (drop zones, Nap-of-the Earth routes, and terrain-following routes) | <p>For each aircraft operation area:</p> <ul style="list-style-type: none"> • Map (to scale) showing the flight tracks with altitudes (AGL). • Number of aircraft by type, using each flight track during daytime (0700-2200) and night-time (2200-0700) hours. |
| Small arms ranges | <p>For each range:</p> <ul style="list-style-type: none"> • Range name. • Universal Transverse Mercator (UTM) grid coordinates of the left-most FP, looking down range. <ul style="list-style-type: none"> – Six digit easting. – Seven digit northing. – Grid zone designation number. • Grid azimuth to target (degrees). • FP data. <ul style="list-style-type: none"> – Number of lanes. – Distance between lanes. – FP elevation. • Target data. <ul style="list-style-type: none"> – Number of targets. – Distance to targets from FPs. – Target spacing (distance). – Type backstop (berm, wall, none). – Wall absorption material covering (foam, glass wool, none). – Thickness of absorption material. – Height of backstop (above ground). • Safety barrier/baffles. <ul style="list-style-type: none"> – Height of lower edge (above ground). – Height of upper edge (above ground). – Down range location from firing line (distance). – Type absorption material on barrier/baffle (foam, glass wool, none). – Thickness of absorption material. • Left barrier. <ul style="list-style-type: none"> – Type (berm, wall, none). – Height of berm or wall (above ground). – Lateral location from left-most FP (distance). – Type absorption material on wall (foam, glass wool, none). – Thickness of absorption material. • Right barrier. <ul style="list-style-type: none"> – Type (berm, wall, none). – Height of berm or wall (above ground). – Lateral location from right-most FP (distance). – Type absorption material on wall (foam, glass wool, none). – Thickness of absorption material. • Rear barrier (behind firing line). <ul style="list-style-type: none"> – Type (berm, wall, none). – If berm or wall, the height (above ground). – If shed, the height of front edge (above ground). – Overhang of shed ahead of firing line. – Type absorption material on wall (foam, glass wool, none). – Thickness of absorption material. • Weapon data. <ul style="list-style-type: none"> – Type of weapon (M16, 9 mm, 50 cal, etc.). – Number of annual rounds fired daytime (0700-2200). – Percentage of daytime rapid fire (more than 20 total rounds/sec). – Number of annual rounds fired nighttime (2200-0700). – Percentage of nighttime rapid fire (more than 20 total rounds/sec). |
| Vehicles | <p>For each roadway segment:</p> <ul style="list-style-type: none"> • Number of vehicle passbys by vehicle type during daytime and nighttime hours. • Roadway characteristics, including number of lanes, surface type, percent grade, and location of barriers and buildings. |

Table 7-4
Operations generating noise contours—Continued

| | |
|--------------------|--|
| For this operation | Acquire the following information |
| Other sources | For each source: <ul style="list-style-type: none"> • Type of source (for example, 400 kilowatt diesel generator). • Location of source. • Operating cycle of source. • Number of daytime and nighttime operating hours. |

Chapter 8

Asbestos Management

8-1. Scope

The basic requirements to assist installations and CWFs in complying with AR 200-1, chapter 8, may be found in PWTB-420-70-8. The PWTB serves as the Army Asbestos Management Program guidance and contains technical information for asbestos handling, management, abatement, and disposal. CWF can adapt the guidance in PWTB-420-70-8 to their facilities and operations, as appropriate.

8-2. Technical assistance

The PWTB may be found at <http://www.hnd.usace.army.mil/techinfo/CPW/PWTB/420708.pdf>. Refer to the Army Lead and Asbestos Web site (<http://www.hqda.army.mil/acsimweb/fd/LeadAsbestos/pages/home.htm>) for a listing of additional references. Technical assistance relating to health and environmental aspects of asbestos management can be obtained from USACHPPM. Managers at CWFs should consult their environmental compliance coordinator network for sources of technical assistance.

Chapter 9

Radon Reduction Program

9-1. Scope

This chapter outlines the procedures and facility priorities for radon assessments and mitigation to meet the requirements of AR 200-1, chapter 9.

9-2. Army Radon Reduction Program

The Army conducted an extensive Radon Assessment Program in the 1990s. About 85 percent of priority 1 structures were tested. The results indicated that indoor radon is not a problem in the majority of Army structures tested. However a small percentage of Army installations had elevated radon levels.

9-3. Guidance

- a. The Army will comply with all laws or regulations as applicable and required.
- b. The following actions will be taken to assure an effective Radon Reduction Program. Army installations and CWFs will—
 - (1) Maintain and update records of radon assessments conducted, including the building number, sample results, laboratory identification, date of placement, date of removal, and location within the structure.
 - (2) Include test results with real property and housing data for the purpose of notifying tenants and transferees of elevated radon levels (≥ 4 pCi/l). Use of joint information management systems is encouraged.
 - (3) Measure indoor radon levels in newly constructed units, in units converted to housing, and in continuously occupied structures not previously tested. Geographic areas of previously documented high radon levels should be given special priority.
 - (4) Periodically remeasure radon levels in structures that have already been mitigated on the basis of past test results showing elevated levels (≥ 4 pCi/l). Contact the installation radiation protection officer (RPO) for guidance on retesting intervals following successful mitigation.
 - (5) Follow EPA guidance to measure indoor radon levels.
 - (6) Identify elevated radon levels (≥ 4 pCi/l) to the IMA or CW district SOH officer for assessment of health risks. The IMA will make appropriate recommendations regarding the health risks involved and actions necessary in cases of elevated indoor radon levels.
 - (7) Follow USACE and EPA guidance on effective mitigation techniques to reduce elevated radon levels.
 - (8) Use USACE design criteria for radon reduction in new construction.

- (9) Follow these priorities for radon assessment and mitigation:
- (a) *Priority 1.* Daycare centers, hospitals, schools, and living areas (that is, family housing, bachelor officer quarters/ bachelor enlisted quarters (BOQ/BEQ), and billets).
 - (b) *Priority 2.* Areas having 24-hour operations, such as operations and training centers or RDT&E facilities.
 - (c) *Priority 3.* All other routinely occupied structures.
- c. The time frame for accomplishing mitigation is dependent upon the measured radon concentration and is presented in table 9-1.

Table 9-1

Mitigation time frames from receipt of test results

| Radon concentration (pCi/l) | Mitigation required within: |
|-----------------------------|---|
| ≥200 | 1 month or move the occupants |
| <200 to ≥20 | 6 months |
| <20 to ≥8 | 1-4 years (depending on the level of the measurement) |
| <8 to ≥4 | 5 years |
| <4 | No action required |

9-4. Technical assistance

Installations and MACOMs may obtain technical assistance from the sources below. Managers at CWFs should consult their environmental compliance coordinator network for sources of technical assistance. (See app B for mailing addresses and Web sites.)

- a. *USACE, Engineering and Construction Division.* Provide assistance with radon measurements and mitigating elevated levels or radon.
- b. *USACHPPM, Industrial and Environmental Health Physics.* Provide assistance with radon measurements and health effects.

Chapter 10 Pollution Prevention

10-1. Scope

- a. This chapter outlines the procedures necessary to meet the P2 goals and requirements of AR 200-1, chapter 10.
- b. “Pollution prevention,” as defined by the Pollution Prevention Act of 1990 and EO 12856, is “any practice which reduces the amount of a hazardous substance, pollutant or contaminant entering any waste stream or otherwise released to the environment (including fugitive emissions) prior to recycling, treatment or disposal; and any practice that reduces the hazards to public health and the environment associated with the release of such substances, pollutants or contaminants.”

10-2. Pollution Prevention Program

- a. *General.* This paragraph describes the elements of a P2 Program for acquisition programs, MACOMs, and installations. The guidance in this document supplements policy requirements as outlined in AR 200-1, paragraph 5-2.
- b. *Command support.* The commander (or equivalent) should establish a formal P2 policy statement.
- c. *P2 management structure.* The program management structure consists of a P2 coordinator, a steering group, and working teams as necessary.
 - (1) *P2 coordinator.* The P2 coordinator has overall responsibility for the development and implementation of the P2 program.
 - (2) *Steering group.* A cross-functional guiding body, such as the EQCC (installation and MACOM) or the environmental management team (weapon system acquisition), provides the P2 coordinator with assistance, policy guidance, and coordination among other organizational elements.
 - (3) *Working teams.* Cross-functional working teams are formed as necessary to evaluate a particular waste generation process and to identify and implement P2 opportunities. The P2 evaluation will include identifying HAZMATs used in the process and any waste emitted.
- d. *Baseline.*
 - (1) *Baseline year and pollutants.* For pollutant reduction required by EO 12856, the baseline year is 1994. At a minimum, the baseline should include names and amounts of EPCRA toxic chemicals reported in the 1994 toxic release inventory (TRI). Installations should include other calendar year 1994 polluting waste streams or releases to the

environment as appropriate, such as ODSs, HWs, priority pollutants listed in the CWA, solid waste, and energy consumption.

(2) *Baseline correlated with production units.* The baseline should correlate types and amounts of pollutants released or disposed to appropriate units of production. The units of production should be determined at the installation and should correlate changes in pollutant generation to changes in production level. Example units of production are number of items produced, number of training days, size of training unit, and number and type of vehicles maintained.

(3) *Data shortfalls.* Identify data shortfalls in the baseline and ways of correcting the shortfalls.

e. *Baseline tracking.* Maintain a tracking system to track the types, amounts, and changes in the pollutant baseline per unit production.

f. *Periodic pollution prevention opportunity assessments (PPOA).* Use state DOD environmental partnerships as a way to do the PPOAs. Installations should assess processes to—

(1) Determine HAZMAT usage, pollutant generation, nonproduct releases and generation, and any other information necessary to understand the process.

(2) Identify likely P2 opportunities.

(3) Determine the economic, technical, and environmental feasibility of these opportunities.

(a) *Economic feasibility.* Determine the economic factors associated with each P2 opportunity such as procurement costs, operating costs (maintenance, parts, labor, and utility usage), equipment installation, and training. Also determine cost savings due to reduced material and/or utility usage, and reduced waste disposal and/or treatment costs. Use this data to determine the payback period for each opportunity.

(b) *Technical feasibility.* Describe the factors that relate to how each P2 opportunity will be implemented. These factors include training personnel on new procedures, installing new equipment, retrofitting old existing equipment, and determining the effect of the change on the health and safety of workers.

(c) *Environmental feasibility.* Identify the overall effects that each opportunity will have on the environment. Review each process and estimate the reduction in emissions as a result of the P2 opportunity. Also consider the tradeoff of emissions between media; for example, a reduction in air emissions may create increased solid or HW emissions.

(4) Select feasible opportunities.

(5) Determine how to fund and implement the selected opportunities. Processes should be reassessed every 3 years or more often if changes occur in production levels, mission, or technology.

g. *P2 goals.* As appropriate, set pollution reduction, mission, and management goals.

(1) *Pollution reduction.* Reduce EPCRA toxic chemical and other identified pollutant releases and transfers off-site to meet Army reduction goals. Local, state, or MACOM pollution reduction goals may also apply.

(2) *Mission.* Incorporate P2 into mission areas appropriate to the installation, MACOM, or acquisition program. These areas include the following:

(a) Systems acquisition.

(b) Logistics support.

(c) Doctrine and plan development.

(d) Force structure and readiness.

(e) Training and infrastructure.

(f) Industrial operations.

(g) Base operations.

(h) Health and medical.

(i) Transportation, mobilization, and deployment.

(j) RDT&E.

(k) Design and construction of equipment and facilities.

(3) *Management.* Incorporate P2 into functional management areas including the following:

(a) Engineering.

(b) Facilities operations.

(c) Land use management.

(d) Logistics.

(e) Maintenance.

(f) Medical and safety.

(g) Procurement.

(h) R&D.

(i) Training and readiness.

(j) Transportation.

h. *P2 Plan.* Document the P2 Program in a written P2 Plan. The contents of the P2 Plan are described in paragraph 10-3.

i. Training and awards. Implement training in environmental awareness and mission-specific P2 as appropriate. Recognize and reward P2 achievements annually. Nominate individuals, teams, or the facility for MACOM, Army, local, state, or Federal environmental and P2 awards.

j. Affirmative Procurement Program. Comply with the affirmative procurement requirements of EO 13101 and RCRA, section 6002.

(1) EO 13101 mandates Federal agencies to purchase designated products with recycled content.

(2) RCRA section 6002 requires that any procuring agency using appropriated Federal funds must purchase those items composed of the highest percentage of recovered materials practicable. Procuring agencies include any Federal agency, state or local agency using appropriated Federal funds for procurement, or contractor with these agencies (with respect to work performed under the contract). The requirements apply to such procuring agencies only when procuring designated items where the price of the item exceeds \$10,000 or the quantity of the item purchased in the previous year exceeded \$10,000. The \$10,000 threshold applies to all purchases made by an entire agency rather than regional or local offices (for example, Department of Interior or DOD). Most Federal agencies exceed the \$10,000 threshold for EPA designated items. Designated items that do not contain recovered materials may be purchased if—

(a) The price of the designated item made with recovered materials is unreasonably high.

(b) There is inadequate competition (not enough sources of supply).

(c) Unusual and unreasonable delays would result from obtaining the item.

(d) It does not meet the agency's reasonable performance specifications.

(3) Acquisition requirements of this program are codified in section 23 of the FAR and in the DAR. Installation procurement offices will ensure compliance with these acquisition regulations. Environmental offices will assist with training and technical support as needed.

k. Alternative fueled vehicles (AFVs).

(1) The Energy Policy Act of 1992 set requirements for Federal purchases of AFVs. Alternative fuels include ethanol, methanol, propane, compressed natural gas, hydrogen, and electricity.

(2) EO 13031 establishes Federal agency requirements for acquisition of AFVs in metropolitan statistical areas (MSAs). The DA goal for FY 1999 and beyond is for AFVs to make up 75 percent of acquisitions within MSAs. A limited number of specific categories of vehicles such as law enforcement and emergency vehicles are exempted from the requirement.

(3) Army AFV policy in support of the Energy Policy Act, the CAA, and EO 13101 is found in AR 58-1.

l. HMMP. Proponency for the HMMP is shared jointly between the DCSLOG and the Assistant Chief of Staff for Installation Management (ACSIM). DCSLOG policy is contained in AR 710-2. MACOMs and installations should establish procedures and guidance for the following tasks:

(1) Maintaining HAZMAT records, documentation, and information.

(2) Procuring, handling, storing, and using HAZMATs.

(3) Reporting HAZMAT usage and spills in compliance with Federal, state, and local laws.

(4) Assessing HAZMAT procurement, storage, transportation, issue, use, and disposal. Include targets, assessors, assessment frequency, and corrective actions to be taken.

(5) Coordinating and tracking procurement and storage of HAZMAT.

(6) Identifying relevant regulations, directives, and guidance documents applicable to the installation.

(7) Reviewing and updating the program following any incident resulting in an actual or imminent threat of a reportable release or as required by changes in mission, procedures, or HAZMATs used.

(8) Providing guidance for the use and funding of automated HAZMAT management systems (for example, the HSMS).

10-3. P2 Plan

a. General. The P2 Plan should clearly describe the MACOM or installation P2 Program. Installation P2 plans are public documents. A model P2 Plan is published by USAEC. Installations should use this model or prepare a plan containing the minimum plan contents that are described below. Local, state, or MACOM regulations may require additional contents. All P2 plans should be updated whenever a change in function or process occurs.

b. Plan contents.

(1) *Introduction and regulatory requirements.* Includes EOs, RCRA Hazardous Minimization Program, state or local requirements, regulations, Army P2 Plan requirements, and definitions.

(2) *Commitment and program implementation.* Includes installation P2 policy; Army, MACOM, and Installation P2 goals; and program implementation functions.

(3) *Baseline survey.*

(a) Provide facility description and primary mission.

(b) State the acquisition, MACOM, or installation's primary functions and activities integral to fulfilling the P2 Plan.

(c) Summarize baselines for the following: EPCRA toxic chemical use and reported releases and transfers; HW; nonhazardous solid waste; ODSs; and HAZMAT use.

(d) Summarize the baseline and polluting processes, how the baseline was derived (by estimation, measurement, or other method), and baseline correlation to appropriate units of production.

(4) *PPOA summary.*

(a) Summarize pollution processes and past P2 activities.

(b) Identify successes and barriers. Include details about pollutants reduced, levels of reduction, and costs saved or avoided.

(c) Summarize PPOAs including management and business practice changes, alternative processes, equipment or chemicals, and training.

(5) *P2 implementation plan.*

(a) Review past and current projects to include waste reduction and cost savings.

(b) Develop and detail P2 projects for implementation. This must include full cost-benefit analysis. Projects should result from a formal or informal P2 opportunity assessment; demonstrate technical, economic, and environmental feasibility; and support the P2 goals. Include schedules, milestones, and how success will be measured.

(c) Describe training and award programs. Identify any barriers to P2.

(6) *Annual P2 reporting.* Provide an overview of Federal, state, local, and Army reporting requirements. This should include an up-to-date P2 achievement report by waste type and media and should track back to goals.

c. *Waste Minimization Program.* RCRA requires certification of a Waste Minimization Program “in place” by HW generators and HW treatment, storage, and disposal permit holders. The P2 Plan may substitute for a separate HW minimization plan by incorporating the elements of a Waste Minimization Program in addition to the contents described above. Elements of a Waste Minimization Program are described in “EPA Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program,” 58 FR 31114, 28 May 1993.

d. *Nonhazardous solid waste minimization.* The P2 Plan will address some of the topics addressed in the ISWMP. At a minimum, these two plans should reference one another. It may be appropriate to include parts or all of the ISWMP as an appendix in the P2 Plan. Solid waste issues that potentially overlap P2 planning include source reduction, affirmative procurement, recycling, and composting. (See para 5-9 of this publication for more details on solid waste management options.)

10-4. P2 in planning and decisionmaking

a. *P2.* For planning, decisionmaking, and documents required by the NEPA, the definition of P2 may be broadened beyond source reduction to include any reasonable mechanism that successfully avoids, prevents, or reduces pollutant discharges or emissions other than by treating pollution at the discharge end of a pipe or stack.

b. *NEPA.* P2 opportunities should be included in NEPA assessments of major Federal actions, and identified in the resultant NEPA document as a means for mitigating an identified impact. (For more information, see AR 200-2.) CW requirements are addressed in ER 200-2-2.

c. *Acquisition.* For assistance incorporating P2 into the acquisition process, see DA Pam 700-3, the Comprehensive Procurement Guidelines, Associated Recovered Materials Advisory Notices, section 23 of the FAR, and DAR 5000.1 and 5000.2R.

10-5. Other program requirements

a. *P2 funding.* Noncompliance P2 projects will be funded based on cost benefits and return on investment (ROI). Noncompliance P2 projects must be supported by cost benefit estimations to be considered for funding. Installations should budget and fund P2 projects using the following guidance:

(1) The Vice Chief of Staff of the Army (VCSA)/Army Acquisition Executive Memorandum Subject: Policy for Funding Environmental Program Requirements, 6 May 1999.

(2) The current version of EPR Policy and Guidance Document as updated by Office of Director of Environmental Programs.

(3) Cost-benefit estimation guidance from ODEP and USAEC.

(4) MACOM guidance.

b. *P2 reporting.* Based on MACOM guidance, installations and CWFs will report all progress toward meeting P2 goals, any problems in implementing P2, and all changes in baseline, goals, methods, and timelines.

c. *Coordination.* Identify the following through command channels to the appropriate MACOM or the Army acquisition executive:

(1) R&D or technology transfer requirements that would assist the Army P2 Program.

(2) Specifications, standards, TMs, and other documents that require the unnecessary use of HAZMATs.

(3) Nonhazardous and nonpolluting processes or materials to replace hazardous processes or materials required by specifications, standards, or TMs.

- (4) Noteworthy individual, team, installation, or CWF efforts in P2 for award or recognition.

10–6. Technical assistance

Installations, MACOMs, and acquisition programs may obtain technical assistance in various aspects of P2 from the sources below. Managers at CWFs should consult their environmental compliance coordinator network for sources of technical assistance. (See app B for mailing addresses and Web sites.)

- a.* ODEP, P2.
- b.* USAEC, P2.
- c.* AAPPPO.
- d.* USACHPPM, Surface Water and Wastewater.
- e.* USACERL.
- f.* U.S. Army Tank Automotive Research, Development and Engineering Center.
- g.* National Defense Center for Environmental Excellence.
- h.* U.S. Army Research Office.
- i.* U.S. Army Research Laboratory.
- j.* U.S. Army Soldier and Biological Chemical Command.
- k.* Natick Soldier Center.
- l.* U.S. Army Aviation and Missile Research, Development and Engineering Center.
- m.* National Automotive Center.

Chapter 11 Environmental Restoration Programs

11–1. Scope

This chapter outlines the procedures to meet the requirements of AR 200-1, chapter 11. It does not apply to CW properties or functions of the USACE, contractor-owned and contractor operated facilities that are not on real property controlled by the Army, or installations in foreign nations. OCONUS installations should see chapter 14 for overseas guidance.

11–2. Defense Environmental Restoration Program

The Defense Environmental Restoration Program (DERP) (10 USC 2701-2708) authorizes DOD to carry out a program of environmental restoration at Federal facilities under the jurisdiction of the SECDEF. The Army manages the Installation Restoration Program (IRP) and the BRAC Environmental Restoration Program for identifying, investigating, and cleaning up previously contaminated Army lands to an acceptable level of risk. The Secretary of the Army has been designated executive agent for managing the Formerly Used Defense Sites (FUDS) program for the DOD.

a. The DUSD(ES) establishes program goals and provides program management oversight. The DUSD(ES) establishes goals for the IRP, BRAC Environmental Restoration Program and the FUDS program in the Defense Planning Guidance (DPG).

b. The Army programs, budgets, and manages the Army transfer account (known as ER,A) for the IRP and the base closure accounts (BCAs) for the BRAC Environmental Restoration Program. The MACOMs provide IRP and BRAC program execution. The USACE provides execution for DOD FUDS and DASA(ESOH) provides programming and budgeting information to the Office, Deputy Undersecretary of Defense for Environmental Security (ODUSD(ES)) for the FUDS portion of DERP.

c. Qualifications for projects eligible to receive IRP and FUDS funding are listed in the DERP Management Guidance. BRAC eligible cleanup, compliance, and UXO projects are supported with BCA funds. Project designation and eligibility are listed in the DERP Management Guidance and the Army's BRAC Environmental Restoration Program Management Plan.

(1) BRAC cleanup refers to studies and, where required, environmental cleanup of sites to reduce risks to human health and the environment from contamination resulting from past DOD activities.

(2) BRAC compliance refers to closure-related compliance activities. These activities are generally related to projects associated with facilities and buildings requiring cleanup or abatement such as closure of HW treatment, storage, and disposal facilities; abatement of friable asbestos and LBP; and removal of USTs necessary to support transfer of property. In accordance with the DOD/EPA 1999 LBP Field Guide, the BCA will pay for LBP surveys and risk assessments on pre-1978 housing prior to transfer for residential reuse. LBP soil sampling and abatement should only be addressed under the Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X of the Housing and Community Development Act of 1992). Any LBP soil sampling or abatement that is outside the provisions of Title X must be approved by the ACSIM-BRAC Office (DAIM-BO) on a case-by-case basis.

(3) BRAC UXO refers to the identification, investigation, and response to UXO at closing/realigning installations in support of reuse and property transfer and is a restoration cost.

d. Exceptions to the eligibility policy contained in the DERP Management Guidance must be requested in writing. This request should be forwarded, through the chain-of-command, to the HQDA(DAIM-ED) (for active installations) or HQDA(DAIM-BO) (for BRAC installations), Washington, DC 20310-0600. The ACSIM grants approvals with the concurrence of the DASA(ESOH). The written request must justify the estimated cost of the project and the need for funding during the current FY. The request will also justify the need to use IRP, FUDS, and BRAC funds.

e. The Defense State Memoranda of Agreement/Cooperative Agreement (DSMOA/CA) Program reimburses state environmental regulatory agencies for technical services provided in support of the Army's restoration programs. While fostering open communication between the Army and state regulators, this program assists in expediting environmental restoration at Army installations. The USACE is the PM for DSMOA support to all DOD components. DSMOA reimbursement is limited to projects paid for with ER,A (includes FUDS) or BCA funding only.

11-3. Comprehensive Environmental Response, Compensation, and Liability Act application to installation/facilities or Formerly Used Defense Sites restoration programs

a. The EPA's regulation for administering the CERCLA process (40 CFR 300) is the NCP. The NCP describes the procedures necessary for CERCLA eligible HW sites, including those at operating Army installations, BRAC installations, and FUDS.

b. CERCLA requires the EPA to identify and designate sites (including DOD installations and FUDS) that have priority for remedial action (RA). The list of these sites is known as the national priorities list (NPL).

(1) The EPA's Hazard Ranking System (referred to as HRS II) determines which sites should be included on the NPL. Before the EPA can list a site, it is subject to public review in the FR and approval by the state's governor.

(2) When the EPA scores an installation using the HRS II and identifies the installation as being a possible site for the NPL, installations will consult with their MACOM and the USAEC for the IRP and BRAC environmental restoration program. For FUDS, the USACE Directorate of Military Programs (CEMP) executes the management of environmental cleanup activities and will manage the response to EPA NPL notifications related to FUDS. Subject to applicable law, installations, MACOMs, the USAEC, and CEMP will cooperate with the EPA and the states in the site evaluation process by—

(a) Providing existing data on the site and negotiating a schedule for collecting additional data needed for the HRS II evaluation.

(b) Reviewing the final HRS II scoring of a site. The MACOM (CEMP for FUDS) should request the opportunity to review the final HRS II scoring package and provide comments to the EPA before publication of the FR notice proposing the site as an addition to the NPL. The installation should conduct a technical review, in coordination with USAEC (except for FUDS), to assess the reasonableness of the assumptions and the accuracy of the data. The Director of Environmental Programs (DEP) will review the response package before submitting comments to the EPA. If this review cannot be accomplished prior to the formal proposal, it will be completed during the comment period after publication of the proposal in the FR. Comments should be made through the chain-of-command, via the DEP, to the EPA within the period required by the FR.

(3) Once proposed or included on the NPL, the Army will conduct all the actions necessary to eliminate the environmental hazard at the sites. The Army will address property included or proposed for inclusion on the NPL containing one or more sites following the guidelines of the NCP. For active, BRAC, and NPL/proposed NPL properties, as well as for installations designated critical by the DEP, specific requirements to be fulfilled include the following:

(a) Appointing a remedial project manager/BRAC environmental coordinator (RPM/BEC) within 30 days.

(b) Establishing a Restoration Advisory Board (RAB) or Technical Review Committee (TRC) (see para 11-15b).

(c) Implementing the community relations and public participation procedures specified in 42 USC 9617 and the NCP, section 300.67 (see para 11-15) (for the ARNG, follow National Guard Bureau (NGB) guidelines). Appoint a public affairs specialist to coordinate all releases of information with the MACOM PAO.

(d) Establishing an administrative record in accordance with 42 USC 9613(k)(1) and 40 CFR 300.800.

(e) Initiating the remedial investigation/feasibility study (RI/FS) within 6 months.

(f) Within 120 days, developing and submitting to the DEP for approval a response plan that describes actions to be taken, is fully consistent with the NCP, considers state and local concerns, includes milestones, and includes resource requirements. The response plan should be modified to keep it current with new information. Significant changes should be coordinated with the DAIM-ED.

(g) Upon nomination to the NPL, EPA regions will request that the installation and state enter into a Federal Facility Agreement/Interagency Agreement (FFA/IAG). The IC and the DASA(ESOH) will both sign the FFA for the Army. DOD and the EPA developed model language that forms the basis for negotiations. DOD must approve changes to the model language. Normally, installation legal offices have the lead in FFA negotiations. The legal chain-of-command may, however, designate another lead if the installation and/or MACOM request assistance. The lead for FFAs/IAGs

required for FUDS will rest with the USACE district with FUDS responsibility over the project. Such district commanders will serve as ICs for FUDS.

(4) After the Army has conducted all actions necessary to protect human health and the environment, the Army will petition to the EPA to delete the site from the NPL. The EPA may delete sites/releases from the NPL when no further response action is required to protect human health and the environment. Procedures for deleting a site from the NPL are described in the NCP, section 300.425.

c. For purposes of FUDS, the geographic USACE district with FUDS responsibilities will accomplish these tasks in accordance with USACE's DERP-FUDS Program Manual.

d. The Agency for Toxic Substances and Disease Registry (ATSDR) is mandated under CERCLA section 104 (I) and section 2704 to evaluate all Federal facilities on or proposed to the EPA's NPL for public health concerns.

11-4. Resource Conservation and Recovery Act application to installation/facilities or Formerly Used Defense Sites restoration programs

a. Installations not on the NPL may have restoration requirements under other environmental acts such as RCRA. Regardless of whether CERCLA or RCRA dictates remediation, installations may address sites using ER,A, BCA, and FUDS funds (referred to below as restoration program funding) if the sites meet eligibility requirements.

b. If an installation receives a RCRA operating permit, regulators may require a RCRA facility investigation, corrective measures study, interim corrective measures, or corrective action under the corrective action portion of the permit. The RCRA Facility Assessment, conducted by the EPA for the initial operating permit, identifies all SWMUs at an installation. Not all SWMUs identified for response under the corrective action portion of a RCRA operating permit are eligible for ER,A or BCA funds.

(1) Investigations and corrective actions of SWMUs resulting from past operations where the SWMU was inactive or closed prior to being subjected to RCRA requirements can be funded within the appropriate restoration program.

(2) Investigations and corrective action of SWMUs resulting from ongoing operations cannot be supported with restoration program funding. If an active SWMU is investigated and closed under the RCRA corrective action process and supports property transfer, BCA funds are to be used.

c. Site investigations and remedial responses may be required under the terms of a consent order/agreement, compliance order/agreement, or NOV resulting from an inspection or through self-reporting. Not all remedial responses under the order/agreement/violation are eligible for restoration program funding.

(1) Investigations and remedial responses of sites resulting from past operations where the site was inactive or closed prior to being subjected to the order/agreement can be supported with restoration program funds.

(2) Investigations and remedial responses at sites resulting from ongoing operations at active installations or FUDS cannot be supported with restoration program funds. Investigations and corrective action at BRAC installations that support property transfer must use BCA funds.

11-5. Installation Restoration Program

The IRP applies to active, operational Army installations and inactive, standby installations. It is conducted consistent with the process described in the NCP, 40 CFR 300, and, if applicable, the substantive requirements of the RCRA corrective action process. The IRP also complies with state, regional, and local requirements applicable to the cleanup of hazardous materials contamination, as well as related site safety.

a. The IRP provides a structured, but flexible approach for identifying, evaluating, and cleaning up sites at installations where hazardous substances were released to the environment. The NCP specifies this RA process. It leads to one or more categories of response (removals, interim RAs, or final RAs) or may demonstrate that no additional action is justified.

b. Cleanup goals are determined on a site-by-site basis. All applicable or relevant and appropriate requirements (ARARs) of Federal and state laws are considered in establishing these goals and in selecting the best methods for cleanup.

c. At each phase of response, appropriate coordination is conducted with Federal, state, regional, and local regulatory agencies. Interaction between the installation and the regulatory agencies should be frequent.

d. Community relations activities are an integral part of the Army's IRP. ICs seek public involvement early in the cleanup process (see para 11-16).

11-6. BRAC Environmental Restoration Program

The Army's BRAC Environmental Restoration Program is similar to the Army's IRP, but has been expanded when necessary to include contamination substances not normally addressed under the IRP. These substances include asbestos-containing materials (ACM), radiological commodity and NRC regulated substances, LBP, PCBs, radon, and UXO. PL 100-526 and PL 101-510 designated more than 100 Army installations for closure and realignment. The requirements to investigate and clean up contamination prior to the release and reuse of the property makes expedited cleanup necessary. The Army established the BRAC Environmental Restoration Program in 1988 with the first round

of base closures (BRAC I), and continued it with the second (BRAC 91), third (BRAC 93), and fourth rounds (BRAC 95).

a. The Army BRAC Environmental Restoration Program supports DOD's Fast Track Cleanup initiatives. The DOD Fast Track guidance implements the President's five-part program to speed up economic recovery in communities with closing military bases.

b. The BRAC Environmental Restoration Program uses the BRAC Cleanup Team (BCT) concept to speed up environmental restoration where property will be available for transfer to the community. Each BRAC installation will have a BCT unless exempted by the DAIM-BO. If DAIM-BO determines that a BCT is not required (that is, small installation or remote location), a fast track cleanup point of contact (FTC POC) will be appointed. The BCT consists of one Army representative, one representative of the appropriate state, and where appropriate, one representative from the EPA. The BCT is the primary forum that addresses issues affecting the execution of cleanup to facilitate reuse.

c. The Army representative on the BCT is the BEC. The IC nominates the BEC. The IC forwards the nomination and individual's resume through the MACOM for approval at HQDA (DAIM-BO). The BEC appointed at each closing installation works for and within the Army organization and has the responsibility and implementation authority for environmental cleanup programs related to the transfer of the installation's real property. The BEC will—

- (1) Contact the appropriate EPA Regional Office and state environmental regulatory agency and form the BCT.
 - (2) In conjunction with the other members of the BCT, conduct a bottom-up review (BUR) of the environmental cleanup programs. The BUR will include an evaluation of the existing environmental programs such as the IRP, Closure Related Compliance Program, the Asbestos and Lead-Based Paint Abatement Programs, Natural/Cultural Resources Program, and P2 to identify opportunities for acceleration to expedite conveyance of property.
 - (3) Ensure a BRAC Cleanup Plan (BCP) is prepared and updated as needed.
 - (4) Implement all environmental cleanup programs related to closure in an expeditious and cost effective manner in accordance with the BCP and annual budgets.
 - (5) Negotiate (with consensus building approach) appropriate cleanup and abatement actions with EPA and state BCT members.
 - (6) Identify resource requirements for cleanup and abatement actions in accordance with EPR guidance.
 - (7) Act as the liaison/coordinator with appropriate installation and headquarters commanders with regard to environmental restoration and closure-related compliance matters.
 - (8) Participate, in conjunction with other BCT members, as co-chairman of the RAB, as agreed to by the IC (this may be delegated to the installation PAO or other appropriate official).
 - (9) Act as liaison to the DOD Base Transition Coordinator (BTC) on environmental matters affecting the leasing or conveyance of property (for example, cleanup schedules and priorities, cleanup actions and levels, reports to community leaders on cleanup progress and/or possible impediments to a lease of conveyance.)
 - (10) Provide direction on the use of BRAC environmental funds to accomplish cleanup and abatement actions within resources available.
 - (11) Propose and execute cleanup agreements (or changes to existing cleanup agreements), orders and decrees, and other environmental procedures to achieve timely and cost effective cleanup.
 - (12) Serve as the PM or the RPM where the installation has a FFA, IAG, or other regulatory cleanup agreement, order, or decree.
 - (13) Prepare the finding of suitability to lease (FOSL) and finding of suitability to transfer (FOST).
 - (14) Establish and maintain the administrative record and participation procedures required under CERCLA. Establish and maintain the administrative records of all other actions taken with regard to the cleanup of the installation.
 - (15) Maintain an awareness of the status of site activities and intervene as warranted to ensure expeditious environmental cleanup completion.
 - (16) Integrate property transfer priorities into the environmental cleanup program.
 - (17) Certify that construction projects requested by lessees will not interfere with the environmental cleanup program.
 - (18) Initiate innovative ideas that will accelerate the cleanup and transfer of excess Army property and are consistent with the intent of this appointment.
 - (19) Ensure that all environmental requirements (cleanup and compliance, for example, NEPA, section 106, section 7) are being addressed to posture property for disposal as soon as possible in accordance with DA guidance and community reuse plans.
- d. Installations requiring no BCT will appoint a FTC POC in place of a BEC. The same procedures are used for the nomination and approval of the FTC POC as those used for the BEC. The FTC POC will follow the same procedures as identified for the BEC in paragraph c above.

11-7. FUDS Program

The FUDS Program cleans up properties that were formerly owned, leased, possessed, or used by the Army, Navy, Air Force, or other defense agencies. The Army is the Executive Agent for FUDS and provides management oversight

through DASA(ESOH). The USACE is responsible for carrying out the program. Installations receiving inquiries concerning FUDS will refer interested parties to the nearest USACE military district. DOD's DERP-FUDS charter provides general policy on management and execution of the FUDS Program. USACE's DERP-FUDS Program Manual specifies FUDS execution policy and procedures.

11-8. Information management and data requirements

a. Site. A site is a discrete area with verified contamination requiring further response action that has been or will be entered into the Defense Site Environmental Restoration Tracking System (DSERTS). BRAC compliance and UXO sites are appropriately coded within DSERTS. Also, for BRAC compliance sites, a project addressing multiple sites for a single contaminant (for example, asbestos, LBP) is equivalent to a "site." For the FUDS Program, a site is equivalent to a "project" and an installation is equivalent to a "FUDS Property"; therefore, multiple projects may be executed on a single FUDS property.

b. Data reporting systems. The DSERTS is a web-based computer program used Army-wide by MACOMs, installations, and PMs. DSERTS provides an automated method to manage, track, and query data on activities conducted under the DERP (IRP and BRAC Environmental Programs). The Army uses DSERTS data to meet upward reporting requirements and to manage the Army restoration programs. The DSERTS is the major source of information for the DERP Annual Report to Congress, relative risk site evaluations (RRSEs), DOD in-process reviews and measures-of-merit, and Installation Action Plans/BCPs and abstracts. The FUDS program uses the FUDSMIS for the same purposes.

c. RRSEs. The DOD established restoration goals for the DERP using a risk management concept with RRSEs. The RRSE uses common standards and rating definitions for all military services to ensure uniform categorization DOD-wide. RRSEs ensure general sequencing of restoration work across DOD, first at sites that pose the most risk to human health and the environment. The RRSE is not a substitute for a baseline risk assessment or health assessment, nor is it a means of placing sites into a "no further action" category. RRSE is only a secondary prioritization tool within the BRAC Environmental Program. The primary tool for prioritization at BRAC installations is imminent beneficial reuse.

(1) The Army categorizes DSERTS sites into relative risk groups based on an evaluation of contaminants, pathways, and human and ecological receptors in ground water, surface water, sediment, and surface soils. Evaluations of these factors at a site are combined to place the site in an overall category of "high," "medium," or "low" relative risk.

(2) DOD requires RRSEs for all sites (excluding BRAC and UXO compliance sites) with ongoing restoration activities. RRSEs should be performed with available site data. Using the RRSE module in DSERTS, installations evaluate available data for each DSERTS site that requires further response. DOD uses relative risk to track the Army's progress in site cleanup.

(3) Installations must solicit stakeholder involvement throughout the RRSE process. Risk evaluations can serve as the basis for dialogue with stakeholders (local community and regulator representatives) on sequencing work at sites.

d. Cost-to-complete (CTC). The DOD requires that all services develop a comprehensive estimate, by site, of the total cost for completing all eligible environmental cleanups under the IRP, BRAC Environmental Restoration Program, and the FUDS Program. The DPG requires an annual update of this estimate of CTC for each site in DSERTS with any future planned or potential activity.

(1) The Army uses CTC estimates to develop both the IRP and BRAC Environmental Restoration Programs and budgets.

(2) Requirements for the IRP and BRAC Environmental Restoration Programs are developed and updated using the CTC estimating model. Site level requirements are then programmed in DSERTS based on budget allocations.

(3) Procedures for determining CTC estimates for FUDS are in the DERP-FUDS Program Manual.

e. Quality assurance. For the IRP and BRAC Environmental Restoration Program, MACOMs are responsible for providing quality assurance on all data submitted by installations. All data must meet Army criteria for eligibility and must include RRSE data and CTC estimates by site.

11-9. Requirements identification

a. Installation Action Plans (IAPs). Each installation receiving IRP funds must develop/update IAPs annually. In the case of the ARNGUS, the NGB acts as the installation and is responsible for preparing the IAP.

(1) For each site within DSERTS, the IAP documents IRP requirements, the rationale for the technical approach, and corresponding financial requirements. Prior year funding and tentative cost estimates through the entire remedial process are included. Estimates of cost must be fully supportable, either using a cost-estimating model (the CTC model) or engineered estimate (from a FS). The IAP contains the IRP goals, schedules, history, current DSERTS status, contaminants of concern, response actions taken, and past milestones, as well as any possible future response actions.

(2) The IAP is meant to be a "living document." ICs are responsible for development and subsequent revisions of the IAP and must sign the IAP annually. Despite the official requirement for an annual submission, the installation should update the plan whenever a change to the program occurs or as needed for presentation to regulators and the interested public. At his or her discretion, the IC may distribute the IAP to regulators and/or the public to present the planned restoration activities for the installation.

b. BCPs. The BCP is a management tool that presents the entire environmental program for the installation. Closure installations with established BCTs will prepare and update BCPs as needed. The installation uses the BCP to expedite and improve environmental response actions for disposal and reuse of the installation, while protecting human health and the environment. A BCP should provide the status of a BRAC installation's cleanup and compliance programs, the status of base disposal efforts, and the strategy, rationale, schedule and costs for future execution of all environmental programs.

(1) The DOD BCP Guidebook provides guidance for preparing the BCP. Each BRAC installation with a BCT must have a BCP unless exempted by DAIM-BO. The BCT is responsible for preparing and implementing the BCP.

(2) DOD requires a BCP abstract for every installation with a BCP and all BRAC 95 installations with a FTC POC. The BCP abstract conveys key program management information and summarizes the updated status of the installation's environmental program. The BCP abstract is useful in focusing attention on the overlap between reuse and cleanup planning efforts.

(3) The BCP abstract is a tool used to deliver regular reports to DOD. BCP abstracts are a module in DSERTS and are updated during the DSERTS data calls.

c. Environmental Baseline Survey (EBS). The EBS satisfies the requirements of PL 102-426 for BRAC installations. Paragraph 15-6 provides guidance and procedures for conducting an EBS. The primary objective of Community Environmental Response Facilitation Act (CERFA) is for Federal agencies to quickly identify real property in order to offer the greatest opportunity for immediate reuse and redevelopment of the land. In accordance with CERFA, the Army will identify clean real property where no CERCLA regulated hazardous substances or petroleum products were released or disposed.

d. Eligibility requirements. Use of ER, A, BCA, and FUDS funds to restore the environment is generally restricted to those cleanup activities associated with past releases of contamination to the environment.

(1) The ODUSD(ES) provides specific activities eligible for IRP funds in the DERP management guidance.

(2) Activities eligible for BCA funds for the BRAC environmental program include cleanup, compliance, and UXO activities. BRAC cleanup activities are the same as those listed in the DERP management guidance for the IRP. BCA eligible compliance activities are limited to closure-related compliance activities. When identifying requirements at closing and realigning installations, differentiation must first be made between closure-related compliance activities and mission/operational-related compliance activities. BCA eligible compliance activities may include the following:

(a) Response to releases from in-service USTs.

(b) Friable asbestos that pose health risks and have not been abated by the installation.

(c) USTs to be removed because the tanks are no longer in compliance or will be out of compliance prior to transfer or lease of the property.

(d) Cleanup of leaking USTs no longer needed under closure of the installation.

(e) Cleanup of PCBs.

(f) LBP soil sampling and abatement. Any LBP soil sampling or abatement that is outside the provisions of Title X must be approved by DAIM-BO on a case-by-case basis.

(g) LBP cleanup. MACOMs and installations that are confronted with LBP cleanup should request guidance from ODEP or DAIM-BO on the payment for LBP surveys.

(h) RCRA closure actions accelerated due to the closure of an installation.

(i) Radiological issues (commodity and NRC license-related decommissioning).

(3) BRAC UXO projects include approved UXO projects necessary for property transfer. Building demolition/debris removal is not an eligible BRAC restoration activity at closing/realigning installations. When a structure has been declared a safety or health hazard, or when remediation necessitates demolition, BCA funds can be used.

e. Obligation/Work plans.

(1) The MACOM and installations identify their IRP requirements each year in the IRP Obligation Plan. The MACOMs ensure that funds are obligated only against sites and phases identified in the IRP Obligation Plan. The Obligation Plan is a list, by installation, of the Army's total IRP requirements for a particular year. The Obligation Plan contains several components. The following information must be in the Obligation Plan: the planned and actual obligation by DSERTS site and by quarter, the RRSE ratings, phase, legal driver, and milestone. The plans must reflect 100 percent of the MACOM Annual Funding Plan. When unforeseen issues arise that take precedence over approved line items on the IRP Obligation Plan, an installation identifies new requirements to be added to the plan. The MACOM must provide to USAEC-ER an updated plan for obligation of funds and identify a site to decrement in order to pay for the new requirement.

(2) The MACOMs and installations identify their BRAC requirements for a particular year in the BRAC Work Plan. The BRAC Work Plan is a prioritized listing of the Army's total BRAC EPR listed by installation. The DAIM-BO uses the BRAC Work Plan to track execution of the BRAC Environmental Program. The BRAC Work Plan includes cleanup, closure-related compliance, and UXO projects for BRAC 95 installations, cultural and natural resource requirements, and NEPA requirements. The BRAC Work Plan also includes the proposed obligation of funds by month.

(a) The USAEC-ER prepares the BRAC Work Plan for the current year and the programmed year (FY+1). DAIM-BO uses imminent threat to human health and the environment, beneficial reuse, legally enforceable requirements, relative risk, earlier funding decisions noted in the development of the BCP, and other management factors to prioritize BRAC EPR. The BRAC authorization/appropriation amount is the baseline in determining which projects are funded. Installations are required to provide input to the BRAC Work Plan prior to the BRAC Work Plan reviews held twice annually.

(b) When unforeseen issues arise that take precedence over approved line items on the BRAC Work Plan, an installation identifies new requirements for addition to the work plan and identifies a bill-payer from their approved program to pay for the new requirement to the USAEC-ER and DAIM-BO. The MACOM will submit changes to the current year work plan with justification for adding new site requirements for execution to the USAEC and DAIM-BO. MACOMs and installations ensure that any new requirements are fully coordinated with the project executor. If an Army management structure (AMS) code does not exist for this project, the MACOM must provide DAIM-BO with the new AMS code. In turn, USAEC must update the work plan and provide it to DAIM-BO before DAIM-BO releases funds. Additions to the work plan can be submitted at any time.

(3) The FUDS Annual Work Plan will be developed in accordance with guidance and procedures in the FUDS Program Manual. The FUDS work plan will be staffed through the ACSIM and approved by the DASA(ESOH).

11–10. Programming and budgeting

a. *IRP and FUDS.* Congress authorizes and appropriates Army funding for the IRP and FUDS as two separate transfer accounts. This funding covers the cleanup of contaminants at active Army installations or former DOD facilities located in the U.S., the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, the Northern Mariana Islands, and any other territory or possession over which the U.S. has jurisdiction.

(1) *IRP.* In the year of execution, USAEC builds the Army's IRP budget with DSERTS site-level detail based on the CTC estimates and RRSEs. USAEC consolidates MACOM and installation identified requirements into the budget. USAEC notifies the MACOMs of their Annual Funding Program (AFP) and provides MACOM level AFP distribution guidance to the Army Budget Office.

(a) MACOM Obligation Plans are due in early October for the current FY. Planned execution is presented by site, phase, and quarter.

(b) MACOMs update planned and actual obligations by installation, site, phase, and quarter. Updated Obligation Plans are due to USAEC on the first day of the second month after the end of the quarter: 1 February, 1 May, 1 August, and 1 November.

(c) During the year, at the Program Execution Reviews, the MACOMs report on progress toward obligation of their AFP, explaining any discrepancies meeting Army and DOD goals.

(d) Installations must reconcile obligations with the Defense Financial Accounting System (DFAS) and the Corps of Engineers Project Execution and Accounting Report. Installation or executor resource managers input installation and phase level obligation information to the DFAS using AMS codes identified in DFAS-IN Regulation 37.

(2) *FUDS.* FUDS programming and budgeting procedures are described in the DERP-FUDS Program Manual.

b. *BRAC.*

(1) Congressional legislation directs that BRAC environmental restoration requirements are funded with BRAC I, BRAC 91, BRAC 93, BRAC 95, or other subsequent BRAC accounts, as appropriate. BRAC environmental requirements are defined as environmental restoration actions that must be completed to meet the BRAC schedule. Cleanup projects that must be accomplished sooner, to allow for disposal of the property under BRAC authority, must be financed by BRAC. For installations undergoing realignment, the Army need only expend funds from BRAC accounts to finance cleanup of properties being assessed in accordance with the recommendations of the Base Closure Commission.

(2) The responsibilities for BRAC funding are as follows:

(a) ACSIM is the approving official for the BRAC Work Plan.

(b) As PM, the DAIM-BO prepares programs (for example, the POM) and budgets for the Army's BRAC Program.

(c) USAEC oversees the environmental portion of the Army's BRAC Program, which includes the preparation, maintenance, and submission of the BRAC Work Plan upon which budgets are based.

(d) USAEC and MACOMs will use CTC estimates to identify BRAC environmental restoration requirements. For BRAC 95, the NEPA, cultural and natural resources, and compliance and UXO projects required by virtue of BRAC actions will be reported in the work plan in addition to the environmental restoration requirements.

(e) MACOMs will ensure that all environmental restoration requirements are provided to the USAEC for inclusion in the BRAC Work Plan. MACOMs will identify NEPA and cultural and natural resources for their BRAC 95 installations.

(f) USACE and the servicing corps districts are responsible for coordination with the implementing MACOMs and installations.

11-11. IRP and BRAC program execution

a. Lead executing organization. The IC designates the lead executing organization for IRP and BRAC environmental restoration projects. Use of government agencies outside DOD to execute cleanup projects is discouraged except under unusual circumstances. As appropriate, the Economy Act will be followed. General requirements of the lead executing organization include the following:

(1) Following guidance and procedures for response actions contained in the Army Restoration Programs Guidance Manual and the current IRP and BRAC Management Plans.

(2) Conducting appropriate coordination at each phase of response with Federal, state, regional, and local regulatory agencies. This coordination will include notification according to CERCLA, section 103c, and notice of environmental restoration activities per 10 USC 160, section 2705. For example, the installation must notify EPA, Natural Resource Trustees, state, and local authorities concerning the following:

- (a) The discovery of a release or threatened release of a hazardous substance in accordance with the NCP.
- (b) The extent of the threat to public health and the environment associated with the release or threatened release.
- (c) Proposals for carrying out a response action with respect to the release or threatened release.
- (d) Initiation of any necessary response action with respect to the release or threatened release and the start of each phase of such activities.

(3) Providing EPA, state, and local officials with an opportunity to review and comment on notices, proposals, and actions, as required.

(4) Notifying and coordinating with Natural Resource Trustees as required by section 107 of CERCLA, concerning potential natural resource impacts of remedial activities.

(5) Establishing a community relations program (see para 11-15) for each IRP and BRAC project where an RI/FS or interim or permanent RA is planned. Unless an emergency situation exists, the affected public will be allowed to review and comment on the proposed action.

(6) Submitting plans for remediation of ordnance and explosive material-contaminated real property to HQDA in accordance with AR 385-64. At BRAC installations, plans for ordnance and explosives remediation must be approved by the DAIM-BO before proceeding with removal.

(7) Considering monitored natural attenuation as a potential remedy for sites needing cleanup, either alone or in combination with active engineered remedies. An engineered RA will not be approved unless data exists to prove that natural attenuation is inappropriate for a site cleanup.

(8) Providing ER,A and BCA funds for the DSMOA/CA for state regulatory restoration program services at Army installations. The USACE executes the DSMOA/CA program and reports on the status of the DSMOA/CA program at the DOD in progress reviews (IPRs). The USAEC reviews proposed DSMOA/CA budgets and quarterly reports from the states for consistency with the approved work plans and eligibility for reimbursement.

(9) Providing ER,A and BCA funds for the ATSDR to evaluate proposed NPL/NPL Army properties for public health concerns. USACHPPM is the Army's liaison with ATSDR and reports on the status of the ATSDR program at the DOD in-process reviews. The USACHPPM provides the USAEC with an annual plan of work for ATSDR at Army installations in May/June. USAEC reviews the proposed ATSDR Annual Plan and approves the proposed ATSDR budget for consistency with the approved IRP Work Plan and eligibility for reimbursement. The USACHPPM provides MACOMs and installations with a schedule for site visits.

b. IRP.

(1) The Army's IRP execution strategy is to meet the goals of the DPG. Additionally, the current IRP management plan specifies goals for accomplishment of cleanup at sites based on relative risk for quarterly obligation, disbursement of funds, and program management costs.

(2) Installations will account for expenditures of the installation allotment of the ER,A account by site. This information will be tracked both at the site level and reported to the MACOM and at the phase level and reported through the DFAS.

c. BRAC Environmental Restoration Program.

(1) BRAC program requirements are identified in the President's budget. After Congressional approval of the DOD appropriation that funds this program, funds are released to the Army. As PM, DAIM-BO receives the funding and distributes it for program execution. Funds are distributed to the project executors, either USACE districts or installations. Funds are provided for both program management and project execution.

(a) BRAC funds requests should be submitted to DAIM-BO through the automated funds release system.

(b) BCA package identification codes are used as identified in DFAS in Regulation 37. BCA funds are available for obligation for a 6-year period beginning in FY 1990 for BRAC I. Separate accounts were established for each subsequent BRAC program.

(2) The current BRAC Management Plan specifies goals for accomplishment of cleanup at sites based on reuse for quarterly obligation, disbursement of funds, and program management costs.

(3) Installations will account for expenditures of the installation allotment of the BRAC account by site. This

information will be tracked both at the site level and reported to the MACOM and at the phase level and reported through the DFAS.

d. FUDS execution procedures are described in the DERP-FUDS Program Manual.

11–12. USAEC functions

Pursuant to AR 200-1 and under the guidance of the ACSIM, the USAEC provides a broad range of program, oversight and technical support for the implementation of the environmental restoration requirements in support of HQDA, MACOMs, and installations. Execution of the USAEC oversight mission involves four major elements: fiscal, reporting, program assistance, and policy and guidance.

a. Fiscal.

(1) Develop and manage the obligation/work plans for the BRAC and IRP active sites by using site-level data to build a prioritized unconstrained program.

(2) In conjunction with the MACOMs, confirm IRP eligibility. Establish IRP funding levels based on legal requirements, relative risk, and policy and guidance.

(3) In conjunction with the MACOMs and DAIM-BO, provide advice on BRAC funding levels based on legal requirements, reuse, relative risk, and policy and guidance.

(4) Brief the obligation/work plans through HQDA staff for approval and to obtain the DASA(ESOH) concurrence; use the obligation/work plans to provide program execution oversight.

(5) Review financial information to assess appropriate use of resources.

b. Reporting.

(1) Assess DOD reporting and management requirements, consider comments from MACOMs, and provide recommendations to the ACSIM.

(2) Collect, review, prepare, and present fiscal, site, and project data to support periodic program reporting and management requirements.

(3) Maintain the Army-level DSERTS, the Army's primary means of restoration data collection, to meet upward reporting requirements and to manage the Army's environmental restoration programs.

(4) Consolidate MACOM DSERTS data submissions and review for completeness and consistency with Army guidance.

(5) Maintain selected documents from the installation administrative records to enable the U.S. Army Staff (ARSTAF) to do 5-year reviews and historical queries.

(6) Provide data calls and key events scheduled at the beginning of the FY.

c. Program assistance.

(1) Review program documents (for example, IAPs and BRAC Cleanup Plan (BCPs)) and program actions to identify trends and problem areas that require Army-wide guidance.

(2) All USAEC involvement with installations will be coordinated with the MACOMs.

(a) Involvement in technical and fiscal details and issues of specific installations will occur when suggested or warranted by program or financial indicators, when directed by the ACSIM, when requested by a MACOM, and on a frequency sufficient to assess the implementation of policy and report on program status to the ACSIM.

(b) On selected installations, review project documents for general completeness (to include technical adequacy and cost effectiveness of approach) and adherence to DOD and HQDA policy, standards, and guidance. The USAEC may attend TRC, RAB, and BCT meetings and communicate all issues of mutual concern with the MACOMs. Interact with the responsible MACOM, installation, executing agency, and HQDA staff to resolve problems.

(3) At the direction of the ACSIM, research, obtain data from MACOMs and installations, analyze, advise, and report on program and project-specific issues.

(4) Participate in and respond through the DEP or DAIM-BO and ACSIM to the General Accounting Office (GAO), Army Audit Agency (AAA), DOD Inspector General (IG), and other auditors to identify and address systemic Army environmental issues and notify the MACOMs as appropriate.

(5) Review key documents such as records of decision (RODs), decision documents (DDs), FOSTs, and FOSLs in accordance with current HQDA policy.

(6) In conjunction with MACOMs, provide oversight of installation compliance with FFA and RODs to enable the ARSTAF to better ascertain legal requirements for budget/POM development and reporting.

(7) Upon request from a MACOM, provide program assistance to the MACOM or its installations. As resources permit, the USAEC will—

(a) Attend MACOM program meetings and selected installation-level meetings on an “as needed” basis and in coordination with MACOM environmental staff.

(b) Provide advice and technical review of studies, project reports, and designs; advice during restoration activities; and advice on innovative technologies.

d. Policy and guidance. The USAEC will—

- (1) Assist the ARSTAF in reviewing DOD environmental restoration policy and represent the ARSTAF on environmental restoration committees and at meetings.
 - (2) Draft and staff, as necessary, Army program policy, procedures, protocols, and instructions for execution of the Army Environmental Restoration Program at active and BRAC installations.
 - (3) Monitor general compliance with overall HQDA policy and guidance and report to the ACSIM.
 - (4) Assist installations, MACOMs, and executing agencies in the interpretation of program policy and guidance, as required.
 - (5) Develop training materials and provide awareness workshops on program management, and technical and regulatory information, as well as “lessons learned.”
 - (6) Support value-added program initiatives that promote reduction in restoration costs (for example, natural attenuation, innovative technologies, NPL delisting).
- e. *FUDS*. Oversight procedures are described in the DERP-FUDS Program Manual.

11–13. Staffing and approving DDs

a. *Cost approval thresholds*. Life cycle cost approval thresholds for all DDs, including NPL RODs, are as described below. Signature authority for NPL RODs may not be delegated below a general officer or Senior Executive Service level. The only exception is that an IC, regardless of grade/rank, may sign NPL RODs selecting the no action alternative.

- (1) The DASA(ESOH) approves RODs and DDs greater than \$6 million, unless the DASA(ESOH) chooses to delegate authority to the ACSIM on a case-by-case basis.
- (2) The MACOM commander approves DDs, including NPL RODs, between \$2 million and \$6 million.
- (3) The IC approves DDs, including NPL RODs, less than \$2 million subject to the limitations in paragraph a above.

b. *Staffing procedures for active and BRAC installations*.

(1) *RODs/DDs of more than \$6 million*. Submit five copies of final RODs and other DDs needing ACSIM approval through command channels, including intermediate headquarters, to HQDA(DAIM-ED-R), 600 Army Pentagon, Washington, DC, 20310-0600. The ODEP will provide copies to the appropriate HQDA staff elements (including DAIM-BO for BRAC funded RODs/DDs) for staffing.

(a) The signature on the endorsement memorandum at each level in the chain-of-command when forwarding the final ROD or DD to HQDA will be by someone with authority to sign for the commander.

(b) HQDA expects that, at a minimum, MACOMs will obtain coordination from USAEC and USACHPPM and staff RODs with the staff environmental, legal, public affairs, and medical authorities in the MACOM chain-of-command. Cover correspondence should state that the staffing within those MACOM offices was accomplished.

(2) *All other RODs/DDs*.

(a) Prior to signing NPL RODs, the MACOM or IC must coordinate the ROD with USAEC and USACHPPM.

(b) The Environmental Law Division of the Office Army Staff Judge Advocate (DAJA-EL) is available to assist the MACOMs and installations. Recommend MACOMs and installations use this service when staffing draft RODs and other DDs.

(c) Provide copies of signed DDs, including RODs, at a minimum, to each level in the chain-of-command below the approval authority and to the Commander, USAEC, ATTN: SFIM-AEC-ER, 5179 Hoadley Road, Aberdeen Proving Ground, MD 21010-5401. The approving headquarters should also provide a copy of signed RODs to the Office of the Assistant Secretary of the Army (Installations and Environment) (OASA(I&E)), 110 Army Pentagon, Washington, DC 20310-0110. The transmittal memorandum for both notifications should include a short narrative summary describing the action and its relationship to other cleanup actions/operable units, degree of risk reduction, cost-benefit of the remedy, and technologies considered.

c. *Responsibilities of installations and MACOMs concerning DDs or RODs that commit the Army to future expenses are to ensure that—*

(1) The project must meet the eligibility requirements for IRP or BRAC Environmental Restoration Program funding.

(2) The IRP and BRAC Environmental Restoration Program Obligation/Work Plans (current year), President’s Budget (budget years), or Future Year Defense Plan (program years) contain funding for the cleanup program RA. Environmental requirements will be submitted to support planning, programming, budgeting executing system (PPBES).

(3) The action conforms with priorities for risk reduction in program guidance.

(4) Monitored natural attenuation is considered during the FS/ROD process.

d. *Suspenses*.

(1) Cover memoranda should advise of any negotiated or imposed deadlines and allow sufficient time for staffing at each level in the chain-of-command.

(2) For BRAC fast track cleanup or situations when an IAG or FFA deadline might be missed—

- (a) The MACOM should convene a conference call with the installation, executing agency, DAIM-BO, ODEP, and MSC (if applicable) representatives.
- (b) The conference call should result in an understanding of any deadlines and if and how the process can be expedited.
- (c) For RODs/DDs over \$6 million, the installation should send a copy of the final ROD to the MACOM via overnight or next day commercial delivery and to ODEP to initiate the HQDA staffing process.
- e. *FUDS*. Staffing and approving procedures for FUDS RODs/DDs are described in the DERP-FUDS Program Manual.

11–14. Off-site response actions

- a. Off-site response actions may be considered when—
 - (1) Data indicate that contamination is migrating from a source on Army-controlled property that may be affecting off-site resources or is at the boundary of the Army-controlled property.
 - (2) Contamination is detected beyond the boundary of the Army-controlled property, and there is evidence that the property is the sole source or a major source (for example, the contaminants are military-unique; there are no other potential sources in the area; or other sources in the vicinity are insignificant in terms of the quantities of contaminant when compared to past land use and disposal practices).
- b. When off-site migration is suspected, the following actions will be taken:
 - (1) *Off-site data collection*. AR 200-1, paragraph 11-10, states that the DASA(ESOH) will approve all off-site response actions. However, since publication of the February 1997 AR 200-1, the DASA(ESOH) has designated authority to the IC to approve off-site data collection to determine contamination migration and any off-post monitoring to ensure that contamination has not migrated off-site. If there is an actual or high potential health threat to personnel on or off the installation, the IC will begin emergency notification procedures as follows:
 - (a) The IC, in consultation with USAEC, will immediately follow the requirements of the SPCCP (see para 3-3). The IC will also notify, through command channels, the MACOM environmental, legal, and public affairs staffs of the discovery. (The ARNG should notify the coinciding staffs of the NGB.)
 - (b) The MACOM will notify USAEC immediately by telephone and, within 15 days of discovery, provide HQDA(DAIM-ED), Washington, DC 20310-2600, a written summary of facts. USAEC will provide immediate telephonic or e-mail notification to HQDA (DAIM-ED).
 - (c) Immediately after notifying the MACOM, the IC will notify and consult with the appropriate EPA regional office. State and local authorities, in accordance with CERCLA, section 102, and 10 USC 2705 will also be notified.
 - (d) The installation will contact the USACE FOA real estate office to obtain the rights of entry for any off-site response action.
 - (2) *Response plans*.
 - (a) Where imminent or actual endangerment to human health is suspected, the MACOM telephone report to USAEC and ODEP, required in paragraph b(1)(b) above, will include an Emergency Response Plan containing a description of the emergency response action (for example, the provision of a temporary or alternate drinking water supply, sampling of private wells, or drilling for monitoring wells). It will also include the name of the commander approving the response, the estimated cost, and the expected starting date of the action. USAEC and ODEP are available to review and make recommendations to the commander concerning a proposed response.
 - (b) Where no emergency action is required, the MACOM will provide a response plan to DAIM-ED, through SFIM-AEC-ER, within 45 calendar days of the discovery. This plan will include the technical response (studies, alternate water supplies, etc.), regulatory notification, community relations activities, and an estimate of funding requirements. Projects will be funded from the MACOM allocation for the appropriate FY and should be included in the work plan.
 - (c) The IC will look for permanent solutions to minimize the Army's future commitments and liability. Off-site response actions may involve construction, which may include an alternate water supply or water treatment system. In these cases, minor construction and military construction options should be considered.
 - (d) The off-site response plan will be drafted and coordinated with EPA, state, and local authorities.
 - (e) ODEP and USAEC are available to review the proposed response and make recommendations.
 - (f) Once the appropriate commander approves the response, approval for response plans, DDs, or RODs supporting specific off-post remedies will be as in paragraphs 11-13a(1)–(3).
 - (g) Except at FUDS, the Army may institute condemnation proceedings to acquire sufficient land for investigations or a RA. These proceedings will be done if coordination through the local government and other means to gain access fail.
- c. EPA, state, and local authorities' assistance will be required in such matters as the following:
 - (1) Planning and conducting investigations, particularly, the sampling of private water supplies.
 - (2) Determining when alternate water supplies are needed, identifying the appropriate water supply option, and providing alternate supplies.
 - (3) Providing information to the public.

- (4) Ensuring that the emergency response plan is consistent with the NCP.
- (5) Working with local government authorities to obtain access to off-site well-drilling sites, as needed.

11–15. Public participation and community relations

a. Environmental restoration and local communities. It is DOD policy in the DERP to establish full and open communications with local communities. Local communities will be interested in the results of environmental studies conducted under the IRP, BRAC environmental restoration, and FUDS programs because of the potential impact on their health, environment, and economic well being. The Army fully supports public involvement in the environmental restoration programs that CERCLA (as modified by SARA) and NEPA establish. Both of these laws and the NCP (40 CFR 300.415(b)(2)) require the Army to solicit and consider the comments of interested individuals, groups, and government bodies before selecting a remedial alternative. Commanders are encouraged to foster open, two-way communication with the local communities throughout the environmental restoration process.

(1) In the IRP and BRAC Environmental Restoration Program, the IC (for the ARNG facilities, the NGB) will keep the public informed about IRP and BRAC environmental restoration activities. The public includes installation residents and personnel and local citizens. This communication is particularly important if such studies show that contamination has migrated off-site or is present on the study property in any significant quantity as to pose a threat to human health or the environment.

(2) Public participation activities will begin no later than the initiation of the RI/FS (preliminary assessment/site inspection (PA/SI) for FUDS), unless a situation develops during the PA/SI that would dictate earlier public involvement.

(3) A Community Relations Plan (CRP) or Public Involvement and Response Plan (PIRP) is required for all Army properties proposed or on the NPL. Installations that are not on or proposed for the NPL are strongly encouraged to establish a CRP including installations with off-post contamination and installations with interest in establishing a RAB. Such plans will be developed per EPA guidelines, the NCP, and guidance from the Chief of Public Affairs (CPA). The installation will complete the CRP before fieldwork begins on the RI and will be implemented through the ROD/DD stage. After the ROD/DD is approved, the plan must be revised to provide for public involvement throughout the remedial design and RA.

(4) Installation PAOs are encouraged to keep the public informed and involved throughout the RI/FS process. This communication can be done using various public affairs methods such as public meetings, availability sessions, site tours, briefings, and/or workshops. PAOs need to develop and give information to the general public and media. This information can be in the form of fact sheets, executive summaries, and/or news releases.

b. RAB. A RAB is a forum for discussion and an exchange of information between governmental agencies and the affected community concerning an installation's Environmental Restoration Program. Guidelines for establishing RABs at FUDS are found in the FUDS Program Manual.

(1) Each active Army installation participating in the IRP and each BRAC installation must determine community interest in establishing a RAB. A RAB should focus on environmental restoration only and not be a forum for other community concerns. While related issues of land reuse may appropriately arise at BRAC sites, noncleanup issues should be referred to the appropriate installation officials for processing.

(2) The IC is responsible for identifying sufficient and sustained community interest. Community involvement techniques such as surveys, advertisements, interviews, and public information meetings should be used to educate the community and solicit feedback.

(3) If an installation solicits for interest and finds that there is not enough support to establish a RAB, the installation must document what efforts were taken to determine interest and develop ongoing follow-up procedures to monitor community interest. This documentation should be placed in the installation's administrative record and attached to the IAP or spring submission of the BCP Abstract. If an installation determines that there is sufficient interest in establishing a RAB, the installation should proceed to establish a RAB.

(4) BRAC sites that involve transfer of property to the community will establish a RAB. For other BRAC sites and active sites, the Army encourages RABs only where community interest is sufficient and sustained.

(5) Criteria for determining sufficient interests are—

- (a) Request from a local government to form a RAB.
- (b) Fifty or more local residents sign a petition requesting that a RAB be formed.
- (c) The IC determines the need for a RAB.

(6) If an installation needing a RAB already has a TRC, the TRC will be expanded or modified to become a RAB if interest in a RAB is expressed. These modifications shall include additional community representatives and a community co-chairperson and ensure meetings are open to the public. A RAB complies with 10 USC 2705(c).

(7) RAB membership will include representatives from the Army, the EPA, state environmental regulatory agencies, local governments, Native American tribes, and members of the local community.

(8) The RAB should be no larger than 20 individuals but no smaller than is necessary to adequately reflect the diverse community interests regarding installation cleanup.

(9) The RAB will be chaired jointly by an Army representative and a member of the local community. The Army

and community co-chairperson will share leadership responsibilities. The RAB's charter and operating procedures shall define the responsibilities of each co-chairperson.

(10) The intent of the RAB is to serve as a forum for the early and continued exchange of cleanup information among the community, installation, and regulatory agencies. RAB member responsibilities include the following:

- (a) Providing advice on environmental restoration issues to Army installations and regulatory agencies.
- (b) Holding regular meetings, publicly announced and open to the public, at convenient times and locations.
- (c) Reviewing, evaluating, and commenting on documents.
- (d) Identifying project requirements.
- (e) Recommending priorities among sites or projects.
- (f) Identifying applicable standards and (consistent with section 121 of the CERCLA) proposing cleanup levels consistent with planned land use.

(11) Installations with RABs will—

(a) Inform RAB members on the relative risk process, the Army budgeting process, and how these affect the sequencing of restoration actions.

(b) Encourage RABs to participate in the initial development and/or reassessment of relative risk evaluations of sites.

(c) Develop budget requests within Army guidelines while considering RAB advice on sequencing projects.

(d) Advise the RAB of what funds were received, what restoration projects were funded, and what work is remaining.

(e) Provide the RAB with all relevant information on cleanup alternatives, including implications of land use choices and corresponding cleanup levels and remedies.

(f) Ensure that RAB members understand the installation's chain-of-command and appropriate avenues for obtaining assistance within the chain-of-command.

c. *Technical assistance for public participation (TAPP)*. There may be times when community members of RABs/TRCs require a level of independent technical support. Community members of RABs/TRCs may seek independent technical assistance to contribute to the public's ability to participate in the IRP, BRAC Environmental Restoration Program, and FUDS Program.

(1) To obtain funding, community members must apply for TAPP.

(2) The installation reviews the TAPP application for eligibility and approval before developing appropriate TAPP funding requirements.

(3) Detailed guidance and procedures for TAPP are contained in the guidance entitled, "U.S. Army Guidance for Restoration Advisory Boards and Technical Assistance for Public Participation."

d. *Environmental justice*. Installations will address and consider environmental justice concerns and issues in its restoration programs. In 1994, the President issued EO 12898. The EO measure requires Federal agencies to identify and address disproportionately high and adverse human health and environmental effects of Federal programs, policies, and activities on minority and low-income populations.

(1) Environmental justice issues within a community are identified as part of the process of developing the CRP.

(2) A primary mechanism for input from the environmental justice community on restoration issues will be from RABs.

11–16. Congressional relations

a. To carry out its Environmental Restoration Programs, the Army will cooperate with members of Congress and state and local elected officials.

b. Congressional relations' procedures for IRP and the BRAC Environmental Restoration Program are as follows:

(1) Notify the appropriate members of Congress and state and local elected officials of significant environmental restoration activities and study findings. Notification may be appropriate when study findings indicate that contamination presents a threat to public health or the environment. It may also be appropriate to notify when off-site migration of contaminants is detected or when major response actions are initiated or completed. Public officials will be notified if they show interest in a specific source of contamination.

(a) The IC (or NGB and CEMP, as applicable), in consultation with USAEC and MACOM staff, will identify and recommend subject matter for notification through the chain-of-command.

(b) Without exception, the Office of Congressional Legislation and Liaison (OCLL) (or designee) will notify members of Congress.

(c) Notification of state and local officials will be made by the MACOM or the installation after coordination with HQDA CPA.

(2) Prompt response will be made to congressional inquiries and requests for information on IRP and BRAC Environmental Restoration Program activities.

(a) Responses will be made in draft by the installation unless otherwise requested by the DEP. Responses will be

provided, respectively, through the chain-of-command to the DEP and HQDA OCLL (or designee) who will prepare and deliver the final response. Copies of the final response will be furnished to the IC (or USACE FOA) and the DEP.

(b) If the congressional inquiry concerns a matter that is under litigation, the inquiry should be sent immediately to HQDA, DAJA-EL, Washington, DC 20310-2210 for IRP and BRAC Environmental Restoration Program matters, or to the HQ, USACE Office of Chief Counsel (ATTN: CECC-K) and Office of Public Affairs (ATTN: CEPA-I) for FUDS program matters. The public affairs staff of the respective program will prepare and deliver the response in coordination with the Office of the Secretary of the Army, Public Affairs (SAPA).

Chapter 12

Environmental Quality Technology Program

12-1. Scope

This chapter outlines the procedures to meet the requirements of AR 200-1, chapter 12.

12-2. Program mission

a. The mission of the Army Environmental Quality Technology (EQT) Program is to develop solutions that satisfy the Army's environmental quality technology requirements. These solutions, in the form of technologies, are specifically targeted to reduce total ownership costs related to sustaining the environment and the Army mission. The EQT Program supports RDT&E for the four environmental pillars: restoration, compliance, conservation, and P2. To accomplish this, the program—

- (1) Identifies, defines, and prioritizes requirements and their potential solutions.
- (2) Submits and defends these requirements and potential solutions for funding.
- (3) Provides DOD environmental quality technology developers with an insight into Army prioritized requirements, thereby encouraging non-Army investment for Army requirements.

b. The U.S. Army's EQT Program is designed to support the Army's role as a steward of soldiers and natural resources. As part of this stewardship, Army research, development, and acquisition of technology through the EQT Program improves the Army's ability to conserve natural resources; reduce operating, maintenance, and restoration costs; and protect the health of its soldiers, employees, families, and the environment. The program is developed and funded to address user requirements on a priority basis within each pillar, as well as across the pillars, on an Army-wide basis.

12-3. Funding

a. EQT Program technologies may either be developed within specially designated environmental quality RDT&E program elements, or they may be integrated within the Army's acquisition process, as an integral part of the science and technology (S&T) or weapon system programs.

b. The EQT Program considers—

- (1) Army RDT&E budget activities (BA):
 - (a) Basic research (BA 1).
 - (b) Applied research (BA 2).
 - (c) Advanced technology development (BA 3).
 - (d) Demonstration and validation (BA 4).
 - (e) Engineering and manufacturing development (BA 5).
 - (f) RDT&E management support (BA 6).
 - (g) Operational systems development (BA 7).

- (2) Operations and Maintenance, Army (OMA).
- (3) Real Property Maintenance, Army (RPMA).
- (4) DOD-level programs such as—

- (a) Defense Environmental Restoration Account (DERA).
- (b) Strategic Environmental Research and Development Program (SERDP).
- (c) Environmental Security Technology Certification Program (ESTCP).

c. The Army and DOD utilize and benefit from technology development that occurs outside the Government through partnering via cooperative research and development agreements (CRADAs) and other private sector developments. Accountability of the environmental benefits and impacts developed through these relationships should be managed and reported at HQDA.

12-4. Environmental quality technology requirements

a. EQT user requirements are identified, analyzed, and validated on a continuing basis to provide a prioritized list of requirements. These requirements describe the environmental problem areas and relevant potential solutions including

required S&T and/or existing technology. The requirements and supporting information are maintained in the Army Environmental Requirements and Technology Assessments (AERTA) system.

b. Through a three-tier process, including environmental quality pillar technology teams and the Army Staff, the requirements are reviewed and scored for allocation of funding and other resources. The priority scoring for each statement takes into account the severity and scope of the problem, level of health and safety risks, costs and mission impacts to the Army, regulatory compliance, threat to the environment, and other applicable constraints. The scoring process incorporates a quantified analysis of the following:

- (1) Current costs and impacts of the problem within the Army.
- (2) Investment costs of associated S&T, demonstration/validation, and technology transfer.
- (3) Benefits to be derived from implementation of the technology including cost savings, increased readiness, as well as other associated benefits.

12-5. Program management

a. The Environmental Technology Technical Council (ETTC).

(1) The ETTC was jointly established by the Assistant Secretary of the Army for Acquisition, Logistics, and Technology-ASA(ALT) [formerly Research, Development, and Acquisition-ASA(RDA)] and the Assistant Secretary of the Army for Installation and Environment-ASA(I&E) [formerly Installation, Logistics, and Environment-ASA(ILE)] as the general officer/senior executive (GO/SE) council representing the Army.

(2) The ETTC guides funding and program resource allocations within the Army and is supported by an Environmental Technology Integrated Process Team (ETIPT) and four pillar technology teams. Special efforts are made to include all stakeholders in the program management formulation and management process. The EQT Program management approach is consistent with life-cycle management that starts with the requirement to transition or field the technology to the Army.

b. Program management steps.

(1) Program management steps include Technology Requirements Identification/Update, RDT&E planning and programming, and budgeting considerations S&T (BA 1-3) and Technology Transitioning (BA 4-7).

(2) These management activities are scheduled to coincide with the Planning, Programming, Budgeting, and Execution System (PPBES), nominally a 2-year cycle that may include mini-POM adjustments (The Vice Chief of Staff of the Army (VSCA)/Army Acquisition Executive memorandum, subject: Policy for Funding Environmental Program Requirements, 6 May 1999).

c. Program development.

(1) EQT requirements are identified, analyzed, and prioritized throughout the levels of the Army, starting with the installations, MSCs, and MACOMs to ODEP. As the requirement progresses through those levels, it is reviewed to ensure that it is unique and complete.

(2) An installation, MSC, or MACOM POC representing the user community is established for each requirement to ensure that all future documentation accurately reflects the need. This POC may remain an active participant in the RDT&E process or may pass this responsibility onto a member of a technology team.

(3) The responsible technology team develops a requirement by documenting and prioritizing the user's need as discussed in paragraph 12-4. Once the requirement is approved by the ACSIM, it is added to the AERTA database according to its pillar priority. The AERTA process is used by the Army to identify, track, and update environmental quality technology requirements.

d. Program planning.

(1) The ETIPT develops an EQT Program Plan based on the requirements maintained in the AERTA database. The EQT Program Plan is approved by the ETTC and is the basis of the EQT's Program's defense. The EQT Program Plan identifies the high-priority Army investments.

(2) The technology teams develop management plans (MPs) for all fully funded requirements. The MPs contain detailed information including milestones and funding for technology development, validation, and transfer to field. Planning and programming, as depicted in the MPs for each high-priority Army environmental quality technology requirement, should show—

- (a) Need, significance, and opportunities.
- (b) Life-cycle plans, starting at basic research and concluding in technology transfer of products.
- (c) Execution plan for satisfying exit criteria/metrics.
- (d) Funding.
- (e) Endorsing organizations.

- (3) The technology teams developing the MPs include members of the user community and the RDT&E community.
- (4) MPs should be updated and reported at installation, MSC, MACOM, and HQ Army level, showing all planned

funding sources, Army RDT&E, OMA, and other programs such as OSD programs (SERDP, ESTCP, and others). MPs should also identify technology areas where the non-Army resource contributions in S&T have occurred.

Chapter 13

Automated Environmental Management Systems

13-1. Scope

a. This chapter outlines the procedures to meet the requirements of AR 200-1, chapter 13. CW policies, systems, and reporting requirements are promulgated separately by the USAEC.

b. MACOMs must perform a QA/QC check on all report and data submissions prior to forwarding them to USAEC. USAEC will QA/QC all submissions received from the MACOMs. MACOMs must take immediate action to correct all QA/QC issues identified by USAEC.

13-2. Environmental Program Requirements Report

a. Purpose.

(1) The EPR Report is used at all command levels to—

(a) Plan, program, budget, and record requirements and resource needs to manage the environmental program.

(b) Ensure environmental stewardship.

(c) Attain and maintain compliance with existing and proposed Federal, state, and local laws and regulations; presidential executive orders; and international agreements.

(d) Develop and justify program and budget submissions.

(e) Fulfill the Army's budgetary reporting requirements identified in EO 12088.

(2) All project requirements to execute environmental programs must be identified in the EPR Report. The EPR Report must adequately identify and describe each project, the project's compliance status/priority, the amount of funding required, and the years for which funding is required.

(3) The EPR Report supports the Army's Installation Status Report (ISR Environment process by providing the basis for funding requirements included in the ISR Environment.

(4) The generation, maintenance, and standard queries of the EPR Report are automated in the Defense Environmental Security Corporate Information Management (DESCIM) EPR Module software application. Data is exported into Microsoft's Access or Excel for user-specific queries.

b. Assistance. Policy and technical questions related to the EPR Report should be addressed to the functional POCs in HQDA (DAIM-ED) or the Special Programs Branch (SPB) of USAEC (SFIM-AEC-EQS), as appropriate. USAEC also provides both technical and functional assistance to users of the EPR Module software. The Environmental Data Management Support Center (EDMSC) supports users with software questions, requests for customized reports, manual and software updates, and assistance using the Defense Environmental Network Information Exchange for data submissions.

c. Training. EPR Module software training is conducted by the Army Logistics Management College (ALMC) at Fort Lee, VA. (On-site training at installations may be available upon request.) The EPR Module software course gives students complete software operation training and can also be used as refresher training. Class attendance must be requested through installation training coordinators via the training request form, DD Form 1556 (Request, Authorization, Agreement, Certification of Training and Reimbursement).

d. Submissions. Installation EPR data will be submitted in accordance with HQDA and MACOM data call memorandum. MACOMs will consolidate, approve, and electronically forward installation EPRs to USAEC.

e. Submission dates. MACOMs are required to submit annual EPR data to USAEC in early December as specified in the HQDA data call memorandum. MACOMs may elect to update their EPR data submissions in mid-May each year.

13-3. Environmental Quality Report and other reporting requirements

a. Purpose. The Environmental Quality Report (EQR), formerly the Army Compliance Tracking System (ACTS), is an automated system used to collect a wide variety of installation environmental information, including compliance, conservation, program management, and P2 Programs. The primary goal of EQR is to provide DOD with the information it requires as well as providing HQDA, MACOM, MSCs, and installations with critical management information while minimizing short suspense tasking to installation personnel. The EQR program is a result of the 1996 Defense Environmental Quality Program Annual Report to Congress, RCS DD-A&T (A) 1997. All data elements in the EQR are based on the DOD RCS-A&T (A) 1997 reporting protocol, and other law and regulation reporting requirements, and provide users, policy makers, and leadership with periodic updates on critical data within the Army's environmental program.

b. Assistance. USAEC provides both technical and functional assistance to EQR users. Technical assistance is

provided by EDMSC to users on how to create customized reports, obtain users manuals and software requests, and how to submit data. PMs at the USAEC will provide users with functional guidance, such as data definitions and clarification, data interpretation, and MSC and MACOM support requests, as well as overall program oversight. EDMSC may be contacted through SPB at USAEC. Functional questions related to the EQR policy should be addressed to the EQR POC within the SPB (SFIM-AEC-EQS) who will direct you to the correct functional POC.

c. Training. Training is available, upon request, through USAEC. Contact the EQR PM for scheduling.

d. Submissions. EQR submissions will be forwarded by the installations to their respective MSCs and MACOMs who will forward them to USAEC. Installations are required to make submissions every quarter, regardless of their regulatory activity. These submissions will ensure an accurate accounting and the ability to readily identify installations that are experiencing technical or other problems. (See AR 200-1, chapter 13, para 13-5(c) for policy guidance on installations required to submit.)

(1) *Submission dates* MACOMs and MSCs will set supplemental submission dates to ensure that all of the installation data are reviewed, validated, and submitted to USAEC for each quarter by the following dates:

(a) 1st Quarter-30 January.

(b) 2nd Quarter-30 April.

(c) 3rd Quarter-30 July.

(d) 4th Quarter-30 October.

(2) *Submission content.* Quarterly submissions will include, at a minimum, the EQR functional areas listed below. Updates and corrections to previous submissions should be included with each submission as needed. The EQR functional areas include:

(a) 1st Quarter:

1. Inspection tracking.

2. Enforcement action tracking.

(b) 2nd Quarter:

1. Inspection tracking.

2. Enforcement action tracking.

3. Permit tracking.

4. Waste generation and disposal tracking (formal hazardous waste generation and disposal data reported to regulator agency for the previous completed CY).

5. Wastewater treatment systems.

(c) 3rd Quarter:

1. Inspection tracking.

2. Enforcement action tracking.

(d) 4th Quarter:

1. Inspection tracking.

2. Enforcement action tracking.

3. Permit tracking.

4. Waste generation and disposal tracking (formal hazardous waste generation and disposal data reported to regulator agency for the previous completed CY).

5. Wastewater treatment systems.

6. Cultural resources program.

7. Natural resources program.

8. Pest management program.

9. Environmental staff tracking.

10. USTs tracking.

e. Additional reporting requirements. In addition to quarterly EQR submissions, new ENFs must be entered into the EQR and hard copies of the notification must be sent to the MACOMs within 48 hours. Spills of a reportable quantity must be reported to the MACOM within 48 hours (see para 3-2). ENFs in which a fine or penalty has been assessed must be reported within 24 hours to the OTJAG and the MACOM. MACOMs must then immediately report receipt of the fine to HQDA ODEP, Compliance Team. Any action reported in the EQR that requires funding to correct—such as projects, fines, etc.—must also be identified in the EPR Report.

f. Other requirements. (See para 15-16 for additional legal and administrative requirements related to an ENF.)

13-4. Defense Environmental Network and Information Exchange

a. Defense Environmental Network and Information Exchange (DENIX) is DOD's environmental electronic bulletin board system (BBS). DOD environmental personnel should use it to plan, manage, and/or execute DOD's environmental security mission.

b. DENIX has been available for use since August 1993 and is actively used by all DOD components. DENIX is on

the World Wide Web at <http://www.denix.osd.mil>. The World Wide Web is a public domain forum, and specific DOD access is restricted/protected via a DENIX login.

c. To request a login and password, follow the link on the DENIX homepage. Although the usage of DENIX is restricted to primarily DOD personnel, personnel from other organizations (that is, contractor, EPA, and state personnel) may be granted partial access to DENIX on a case-by-case basis. These individuals must have a DOD sponsor submit a request for a login and password.

d. Army personnel who wish to propose additions and/or menu structure changes to DENIX can submit their request through the Army functional representative. Requests should be submitted in sufficient detail with an accompanying rationale to allow the proposal to be evaluated on the following:

- (1) Applicability of information and/or section to environmental security arena.
- (2) Suggested location for posting information on DENIX (the proposal should include proposed menu structure changes).
- (3) Access restrictions (for example, open to all DENIX users, restricted to DOD personnel, or restricted to Army personnel, etc.).
- (4) Functionality requirements (read only, read and write capability).
- (5) Updates and maintenance of information (a POC must be designated to ensure that the information proposed for posting will be updated periodically).

e. For additional assistance, Army personnel can contact either of the following POCs:

- (1) Army functional representative: Commander, USAEC, ATTN: SFIM-AEC-EQS, Aberdeen Proving Ground, MD 21010-5401.
- (2) Technical representative: Commander, USAEC, ATTN: SFIM-AEC-RMI.

13–5. Defense Site Environmental Restoration Tracking System

a. *Reporting requirements.* DSERTS is a web-based reporting system submitted by installations, through their MACOMs, to USAEC. It is used to satisfy the Restoration Management Information System (RMIS) reporting requirement to DOD as follows:

(1) CERCLA of 1980, as amended by SARA of 1986 (42 USC 9620; 10 USC 2706) and section 211 of SARA as amended on 30 November 1993, requires a report on the progress made in environmental restoration activities at military installations. The report, which is submitted annually to Congress, should include the specific information identified in the legislation.

(2) DOD uses the RMIS to provide much of the information required in the DERP's annual report to Congress. For the Army, the RMIS report is submitted via DSERTS.

(3) The Army uses DSERTS to report program status for DOD IPRs and to prepare the IAP or Base Closure Plan.

b. *Army components functions.*

(1) The ACSIM, through the DEP and Base Realignment and Closure Office (BRACO), are the Army's proponent for the DSERTS. The ACSIM's functions include policy and guidance, Army staff coordination, and approval of the data submittal.

(2) USAEC supports the DEP and BRACO in the management of the DSERTS process. USAEC provides guidance to the MACOMs and installations for the DSERTS data call. USAEC serves as custodian of the DSERTS data and provides summary reports as required.

(3) The schedule for DSERTS submission will be determined by DOD for RMIS reporting purposes and/or as may be required by the DEP. At a minimum, DSERTS reports will be due on 15 April and 15 October of each year. Deadline information will be forwarded through the MACOMs to the IC.

(4) After reviewing and correcting discrepancies in the submissions of their installations and subordinate commands, MACOMs will submit the data to USAEC. The USAEC will review the submissions for accuracy and completeness and prepare and submit the data to DOD. DSERTS submissions are sent electronically through the World Wide Web.

c. *Reportable items.* Program system procedures and functional guidance for DSERTS are provided through program help screens and the user's manual. The following items will be reported:

(1) *Regulatory agreements.* Any signed agreement at NPL installations between HQDA and regulatory agencies for the remedial process should be reported. The agreement may contain schedules, dispute resolution procedures, or outline a course of action. Examples are IAGs and RODs.

(2) *Site information.* Items identifying the site, including site name and description, NPL status, program, statute, and site type.

(3) *Site status.* The phase status of the remedial process at the site.

(4) *RAs.* Any past, present, future interim, or final cleanups at the site.

(5) *Completion status.* Identification when no further action is required at the site.

(6) *Programmed funding.* Spread requirements based on allocations provided by HQDA/MACOMs.

(7) *Relative risk.* Risk category, contaminant hazard factor, receptor factor, and migration pathway factor.

d. Points of contact. For DSERTS software, a user's manual, policy/guidance, or other assistance, Army personnel can contact the following POCs:

(1) Functional representative: Commander, USAEC, ATTN: SFIM-AEC-ERP, Aberdeen Proving Ground, MD 21010-5401.

(2) Technical representative: Commander, USAEC, ATTN: SFIM-AEC-RMI, Aberdeen Proving Ground, MD 21010-5401.

13-6. Environmental Compliance Assessment System

a. General. The Army approved Environmental Compliance Assessment System (ECAS) software, a windows application, is a data collection, report generating, and corrective action plan tool for the Army (that is, active Army, ARNG, USAR) to include the continental United States (CONUS) as well as OCONUS. The software is a vital part of the ECAS program (see para 15-8 for a description of the overall ECAS program). The software provides data recording capability for assessment observations; selection of regulatory criteria, corrective action alternatives, and P2 alternatives; and miscellaneous information.

(1) *Environmental Compliance Assessment Report (ECAR).* Reports generated by the software may constitute the ECAR.

(2) *Installation Corrective Action Plan (ICAP).* The ICAP is an installation and MACOM management tool used to outline instances of regulatory noncompliance and associated corrective actions.

(a) A draft ICAP is produced by the assessment team, provided to the installation as part of the draft ECAR, and includes suggested corrective actions and funding requirements necessary to accomplish the suggested corrective actions.

(b) The installation prepares a final ICAP for implementation and execution and provides it to the MACOM for review.

(c) The installation can use the ECAS software to periodically update their ICAP so that they can track the progress of corrective actions.

(d) As findings are corrected they will be recorded in the ICAP as "closed." The status of "open" findings will be recorded along with a projected closure/completion date.

(3) *Master database.* All assessment data sets, including CONUS and OCONUS active Army MACOMs, as well as the ARNG and the USAR, are incorporated into a master database at USAEC, which can be used to develop queries, provide specific information on ECAS findings, or identify trends. A final data set, and the hard copy ECAR if presented to the installation, will be sent to USAEC at the completion of the assessment (approximately 11 weeks after the initial on-site observation).

b. Assistance. USAEC provides both technical and functional assistance to ECAS software users to include technical inquiries and information on field and data definitions, as well as copies of software, manuals, and other assessment tools. This support can be provided by the ECAS Team by calling (800) USA-EVHL, or writing: Commander, USAEC, ATTN: SFIM-AEC-EQS, Aberdeen Proving Ground, MD 21010-5401.

c. Training. ECAS software training is provided by the ALMC. The ECAS software course is a 3-day class that gives the users hands-on experience with all aspects of the software program. There is no tuition charge for Army personnel attending this training class. Transportation and per diem are the responsibility of the organization that has personnel attending the training. Further information on ECAS software training classes is available from the ECAS Team, USAEC.

d. Reporting requirements. All ECAS assessment teams for the active Army (CONUS and OCONUS), ARNG, and USAR will deliver the draft data set to the MACOM who will then forward it to USAEC. If necessary, USAEC and the MACOM will provide comments and recommendations on the data and alternatives to the assessment team within the review timeframe. The final data set and hard copy ECAR (if provided to the installation) will be provided to USAEC for inclusion in the Army ECAS master database. These submissions should be sent to: Commander, USAEC, ATTN: SFIM-AEC-EQS (ECAS Team), Aberdeen Proving Ground, MD 21010-5401.

e. Releasability. All generated data files should be marked "For Official Use Only" and their distribution handled accordingly. The Army has determined that the premature release of these documents would jeopardize the Army's interest in preserving the free flow, analysis, and comment on internal information regarding environmental compliance. However, these documents can be obtained under Exception Five of the Freedom of Information Act (FOIA) only to the extent they contain purely factual information and this factual information can be segregated from opinion or recommendation portions of a document. The final ECAR, with the draft ICAP, is releasable in its entirety under FOIA. AR 340-17 should be consulted for all FOIA requests. All requests for release of final reports will be referred to the appropriate IC (military) or Freedom of Information Officer.

f. Retention. Installations should establish a management system to retain the documents created during the ECAS process to be in compliance with the Federal Records Act and AR 25-400-2.

13-7. Installation Status Report Environment

a. Purpose.

(1) The Installation Status Report (ISR) Environment is a management tool that measures installation readiness as impacted by environmental conditions.

(2) The tool assesses macro-level conditions of the installation environmental program against Army and DOD standards (policy and guidance) and other management indicators.

(3) It is used to improve justification and prioritization of limited resources.

(4) The ISR Environment submission fulfills the minimum requirements of an annual internal assessment for ECAS (see para 15-8).

b. ISR regulation. Refer to AR 210-14 as well as the Installation Status Report Handbook for more detailed information on the overall ISR program.

c. Software. There are two software packages used for ISR Environment reporting: ISR Environment and HQISR. The ISR Environment software is the installation-level software. The ISR Environment software is provided to the installations in January of each year. The MACOMs use the HQISR software package to consolidate, review, and electronically forward the MACOM ISR Environment submission to ACSIM. The HQISR software is provided to the MACOMs in the February/March timeframe each year.

d. Assistance. Policy and technical questions related to the ISR Environment should be addressed to the functional POCs in HQDA (DAIM-ED) or the SPB of USAEC (SFIM-AEC-EQS), as appropriate. The ACSIM provides contractor support for an ISR help desk to support users with technical and functional questions. The ISR help desk can be contacted at (703) 377-0552 or via e-mail at helpline_isr@bah.com. ACSIM also maintains an ISR Web site, <http://isr.pentagon.mil>. All the software, manuals, and standard documents are available for download from the site.

e. External data sources. Data from the EQR, EPR Report, and DSERTS/CTC is electronically imported into the ISR Environment to eliminate duplicate data entry for the user. The external data is extracted from the Army environmental database maintained at USAEC, which contains the final locked submissions for each of the reporting systems. The external data sets are provided to the installations and the MACOMs by USAEC.

f. Training. An ISR Environment software training course is conducted by the ALMC at Fort Lee, Virginia, in conjunction with the EPR-M training (on-site training at installations may be available upon request). The ISR Environment software course gives students complete software operation training. Class attendance must be requested through installation training coordinators via the training request form, DD Form 1556. In addition, MACOMs may also elect to fund additional training courses for their personnel through the ACSIM contractor.

g. Annual after action review. ACSIM sponsors an annual after action review in July to provide a forum for the MACOM ISR POCs to provide feedback on the program. In addition, separate IPRs are held with the MACOMs on an as-needed basis.

h. Submissions. Installation ISR Environment data will be submitted in accordance with MACOM guidance. MACOMs will use the HQISR software package to consolidate, review, and electronically forward the MACOM ISR Environment submission to ACSIM.

i. Submission dates. MACOMs are required to forward their ISR Environment submissions to ACSIM by 15 May each year. The submission consists of the HQISR electronic file, which contains all the installations and MACOM submissions as well as the paper copies of the ISR for each of the installations. The ISR contains the ISR Environment results for the installation and must be signed by the installation or garrison commander.

13–8. Installation Restoration Data Management Information System

Presently, the Installation Restoration Data Management Information System (IRDMIS) is receiving little new data. The data contained in IRDMIS is being converted to reside in a new web-based system called the Environmental Restoration Information System (ERIS). ERIS is scheduled to be on-line late 2001.

Chapter 14

Army Environmental Program in Foreign Countries

14–1. Scope

This chapter outlines procedures to meet the requirements of AR 200-1, chapter 14. It applies to U.S. Army MACOMs, installations, and operations/facilities OCONUS, and its territories and possessions (herein after referred to as foreign areas) where the U.S. Army maintains a permanent base force structure. It does not apply to contingency operations, peacekeeping missions, or actual or threatened hostilities in foreign areas where U.S. Army troops are deployed.

14–2. Environmental compliance requirements

Army components in foreign areas are responsible for compliance with the country-specific FGSs in which they are located. The DOD designated executive agent for that country, as prescribed by DODI 4715.5, develops the FGS. Responsibility for compliance with the FGS refers to ensuring that permanent base operation facilities meet the

environmental standards and criteria established in the FGS. Copies of applicable FGS shall be maintained within the environmental management offices of the parent MACOM and its subordinate installations in foreign areas.

a. As stated in AR 200-1, environmental standards defined and required by Status of Forces Agreements (SOFAs), supplementary agreements, executive orders, international treaties, or other bilateral and multilateral agreements take precedence over the FGS and will be referred to when determining priority for establishing compliance.

b. If clarification is required regarding applicability of FGS and/or other agreements and/or treaties, etc., guidance and assistance from the designated executive agent will be requested. The MACOM environmental office will provide assistance and facilitate coordination with the executive agent, especially for those countries where the Army is not the designated executive agent. Decisions on the applicability of FGS versus other agreements will be documented and maintained by the appropriate MACOM and installation environmental offices.

c. In those countries where the Army is the designated executive agent, the executive agent will provide guidance and assistance to other DOD components on matters pertaining to FGS interpretation and compliance.

d. Army commands that are either designated as a DOD executive agent or whose command supports the DOD executive agent, will plan, program, and budget for the development and maintenance of FGS, review and monitor host nation (HN) environmental laws and regulations, and revalidate and update the FGS on a periodic basis.

e. OCONUS Army installations will plan, program, and budget for compliance with FGS via the EPR reporting process and in accordance with applicable Army planning and programming guidance documents.

f. Army installations seeking waivers to specific FGS requirements will first consult with the applicable DOD executive agent, through their chain of command, to determine appropriate procedures. The MACOM environmental office will facilitate coordination with the applicable executive agent as needed. Where the Army is the designated executive agent, the appropriate unified command will be consulted.

14-3. Environmental remediation requirements

Remediation of environmental contamination on Army facilities or installations in foreign areas will be implemented in accordance with the provisions of DODI 4715.8. In determining whether an imminent or substantial endangerment to human health and safety exists, the Army installation and MACOM will consult with the designated DOD executive agent for remediation in the country in which the facility, installation, or site is located. For example, Army facilities in Italy should coordinate, through their chain of command, with the designated executive agent for remediation activities in Italy.

a. MACOM environmental offices will establish a remediation policy and program in consonance with DODI 4715.8, and policies/procedures developed by the country specific executive agent in consonance with DODI 4715.8.

b. Army MACOMs and installations will consult with the designated country-specific executive agent for cleanup in the host country in which a contaminated site is located to determine necessary cleanup and restoration activities.

c. Army installations will conduct necessary remediation efforts as prescribed by DODI 4715.8, and in close coordination with their MACOM and the Executive Agent.

d. Funding for cleanup and restoration efforts will be in accordance with Army and DOD policy. Programming funds for remediation activities in foreign areas/OCONUS will be in accordance with Army policy and DODI 4715.8.

14-4. Cooperation with host nation authorities

Army commanders in foreign areas will cooperate with HN authorities regarding any legitimate requests for information about unclassified activities that affect environmental quality. For requests from HN authorities on issues that have or may have significant environmental aspects and/or visibility, the Army MACOM will be consulted in determining the appropriate replies.

a. Requests from a HN authority to an Army installation for environmental information on an issue that may have high local or international visibility, or potential Secretariat, DOD, or congressional interest, will be promptly identified and reported to HQDA by the MACOM.

b. Where environmental information requests pertain to U.S. Army installations that effect or may effect another service component, the applicable Executive Agent will be consulted. Also, the Army MACOM will notify HQDA ODEP, ATTN: DAIM-ED-C, 600 Army Pentagon, Washington, DC 20310-0600.

14-5. Notices of violation or noncompliance issues

Army OCONUS MACOMs should develop and implement procedures to identify and elevate issues of noncompliance or issues of highly visible environmental significance for which they have received a notification from HN authorities. HQDA recognizes that formal NOV, ENFs, and/or fines are generally not generated or applicable to OCONUS; however, there is a need to identify the "functional equivalent" of NOV that are received by or occur within Army OCONUS commands.

a. Army installations will notify their MACOM when they receive a formal written notification from HN authorities that identifies a significant noncompliance issue.

b. MACOMs will notify HQDA of such notifications, to include a brief summary of the nature and extent of the issue and the proposed resolution.

c. Environmental issues identified by the HN that have generated local, international, or Congressional visibility that may require additional resources for resolution should be identified to HQDA within 10 days.

Chapter 15

Other Environmental Programs and Requirements

15–1. Scope

This chapter outlines the procedures to meet the requirements of AR 200-1, chapter 15.

15–2. National Environmental Policy Act requirements

NEPA requirements addressing military activities are described in AR 200-2. CW requirements are addressed in ER 200-2-2.

15–3. Natural resources management

Military activities are described in AR 200-3. CW requirements are contained in ER 1130-2-540.

15–4. Natural Resource Damage Assessment

The Army serves as the lead response agent responsible for cleanups of releases of CERCLA hazardous substances, pollutants, or contaminants where either the release is on, or the sole source of release is from, any facility or vessel under the jurisdiction, custody, or control of the Army (40 CFR 300.175(a)(4)). Also, under the NCP, the Army is designated a Natural Resource Trustee for resources, on, over, or under land for which it is the land managing agency (40 CFR 300.600(b)(3)). These two roles involve specific functions as follows:

a. The Army's lead agent responsibilities include, as appropriate—

(1) Identifying existing or potential injuries to natural resources in cleanup documents, such as the ecological risk assessment.

(2) Notifying other trustees of applicable releases.

(3) Coordinating cleanup documentation (studies, investigations, and analyses) with trustees to seek their input and assistance during the remediation process.

b. As a Natural Resource Trustee, the Army may be called upon, on its own or in conjunction with other co-trustees, to identify injuries to natural resources, quantify injury not addressed by remediation, assess compensable damages, and restore the injured resources on lands that it manages. Installations should not engage in Natural Resource Damage Assessments (NRDAs) (that is, quantification of residual natural resource injury, calculation of compensable damages, and planning for natural resource restoration) until cleanup remedies have been chosen and the effects of their implementation can be reasonably anticipated. All requests to initiate or engage in an NRDA shall be staffed through the MACOM to HQDA, while discussions regarding settlement of compensable damages will involve the Department of Justice.

15–5. Cultural resources management

a. Cultural resources are comprised of—

(1) Historic properties as defined in the National Historic Preservation Act (NHPA).

(2) Cultural items as defined in the Native American Graves Protection and Repatriation Act.

(3) Archeological resources as defined in the Archeological Resources Protection Act.

(4) Sacred sites as defined in EO 13007 to which access is provided under the American Indian Religious Freedom Act.

(5) Collections as defined in 36 CFR 79.

b. As a general rule, these laws have procedural requirements to assess impacts to the defined resources and to consider, through consultation, the recommendations of—

(1) Federal and state agencies.

(2) Federally recognized Native American tribes and Native Hawaiian organizations (when applicable).

(3) Other interested persons to avoid, minimize, or mitigate adverse impacts.

c. Common compliance problems result from incomplete identification of cultural resources, failure to involve the public, and failure to complete all steps in regulatory processes. Such lapses may result in a loss of credibility, injunctive relief resulting from litigation, and project delays for Army installations. Army policy emphasis is on compliance with cultural resources laws and deliberate management by ICs through informed decisionmaking.

d. Cultural resources management policy is contained in AR 200-4, implementing guidance is contained in DA PAM 200-4, and CW requirements are contained in ER 1130-2-540.

15-6. Real property acquisition, outgrant, and disposal transactions

a. Applicability. The IC/Army proponent for a prospective real property transaction within the U.S., its territories, and possessions will comply with the requirements of this paragraph. Real property transactions covered by this paragraph are acquisitions, disposals divesting title, transfers of jurisdiction between agencies, and leases. This paragraph is not applicable to reassignments within the DA, real property transactions of the CW activities of the USACE (see appropriate Engineer Regulation), or to permits, licenses, and easements, except where extraordinary circumstances exist. In the case of real estate transactions at installations, the IC is the proponent. At facilities where there is no IC, the proponent is the senior commander or other appropriate person responsible for the real estate.

b. Requirements. The IC/Army proponent must comply with the final decisions regarding CERCLA and NEPA. The action proponent prepares appropriate CERCLA and NEPA reports that relate to real property transactions. The action proponent is the entity that requests the real estate transaction. For example, if the local government wants to lease a facility (school, joint-use airport commercial expansion, etc.) then the local government, as the action proponent, conducts the environmental analysis to meet Army's CERCLA and NEPA standards. The IC may decide to conduct the EBS or NEPA analyses for the proponent where it is advantageous to the Army. Guidance for NEPA compliance is described in AR 200-2. CERCLA requirements include satisfying 42 USC 9620(h) and determining the environmental suitability for the proposed transaction based on an evaluation of an EBS. The presence or absence of threats to human health and the environment determines suitability. 42 USC 9620(h)(4) requires the Army to identify real property that it plans to dispose of with no known releases or disposals of hazardous substances or petroleum products or their derivatives. This property may be transferred in accordance with the requirements of 42 USC 9620(h)(4). Additionally, property that does not meet the requirements of 42 USC 9620(h)(4) (for example, property where hazardous substances or petroleum products or their derivatives were known to have been released or disposed of) can be transferred in accordance with the requirements of 42 USC 9620(h)(3). If all RA has been taken to protect human health and the environment, USC 9620(h)(3)(A) and (B) apply. If all RA necessary to protect human health and the environment has not yet been taken, USC 9620(h)(3)(B) applies. This is commonly known as "early transfer authority" (ETA) and authorizes the deferral of the covenant that requires all necessary RA to be completed before Federal property is transferred.

(1) The IC/Army proponent documents the results of the EBS evaluation in a FOST or FOSET (early transfer) for disposals when the Army is divesting title, or a FOSL for leases. FOSTs, FOSETs, and FOSLs are not required for real property acquisitions.

(2) The IC/Army proponent completes the EBS for Army-initiated property transactions. When non-Army parties initiate real property transactions, the initiating party completes the EBS.

(3) The IC/Army proponent prepares an environmental condition of property (ECOP) instead of a FOST or FOSET when property is being transferred to another Federal agency. Reporting property to GSA for disposal is not a transfer of jurisdiction to another Federal agency and, therefore, does not require an ECOP. In addition, the final screening results and disposal method are not completed, so a FOST or FOSET is not required. However, an EBS is required for property going to GSA for disposal and the EBS will become part of the Report of Excess (ROE) (see AR 405-90).

(4) MACOMs may request exceptions to the EBS, FOST, FOSET, FOSL, and ECOP requirements. Exception requests will be routed through the DEP to the DASA(ESOH).

(5) The IC/Army proponent will also follow the procedures found in AR 405-10, AR 405-80, AR 405-90, and implementing TMs for other aspects of the real property transactions. For BRAC properties, the EBS will also be used to meet the requirements of PL 102-426 for clean parcel identification.

c. EBS. In general, an EBS is a study of the environmental conditions of Army controlled properties and proposed acquisitions, focusing on hazardous substances or other regulated hazards. For the purposes of this paragraph, the definition of a hazardous substance follows the one found in 42 USC 9601(14). The pertinent EBS information will be inserted into the affected environment section of any environmental assessments (EAs) or EISs.

(1) The initiating party prepares an EBS when outgranting, transferring, or acquiring real property. An EBS is also performed to satisfy the requirements of PL 102-426 associated with a BRAC action.

(2) The EBS determines if hazardous substances were stored for 1 year or more, released into the environment or structures, or disposed of on the property selected for transfer. The Army uses the EBS to determine whether or not use of the property poses a hazard to human health or the environment. The EBS will also include information regarding PCBs, petroleum products and their derivatives, asbestos, radon, LBP, and UXO. The Army gathers information through technical analysis, including inquiry (records search, interviews, inspections, etc.) of current as well as former owners and users of the property.

(3) The EBS determines the proper notification and remediation, if required, to effect the property transfer. It also establishes an environmental baseline on which to base third party liability, fines, penalties, and cleanup costs. In addition to the existing DOD guidance on preparing an EBS, installations should contact their servicing USACE district for a review or copies of existing title assemblies.

(4) In general, an EBS is required for leases but not required for reassignments within DA, permits, licenses, and easements except where extraordinary circumstances exist (AR 200-1, paragraph 15-6(a)) or when otherwise desired by the Army (AR 200-1, paragraph 15-6(b)). The IC/action proponent may use section C of the Report of Availability

(ROA) (AR 405-80) to document environmental requirements for permits, licenses, easements, and similar real estate actions where environmental concerns are very minor. A Record of Environmental Consideration may be used where no section C is required for very minor actions with little or no environmental concerns. Exceptions to this policy include when licenses are issued to state National Guard components; when hazardous materials are stored for 1 year or more or disposed on Army property except when authorized by 10 USC 2692 (as amended); and where the authorized use of Army lands and facilities poses a hazard to human health or the environment. Leasing space for trailer sites or automatic teller machines (ATMs) does not require an EBS except where extraordinary circumstances exist. The IC may sign the trailer site or ATM FOSL citing the ECP category.

d. Actions following EBS evaluation. When the results of the EBS evaluation warrant, technical feasibility, economic acceptability, and environmental effect will be considered in selecting one of the following courses of action. Economic acceptability will be determined in accordance with the appropriate AR 405 series regulation and supporting TMs. The Army proponent may—

- (1) Conduct no further action;
- (2) Conduct actions resulting in restrictions of use; or
- (3) Conduct actions resulting in no restrictions on use when economically and technically feasible and when the recipient will accept the property only in an unrestricted use condition.
- (4) In all cases, at a minimum, DA will conduct actions at a level necessary to protect human health and the environment.

e. Analysis of intended use. Before the signing of a FOST, FOSET, or FOSL, an analysis of the intended use of the property, if known, will be conducted and will include the following:

- (1) An evaluation of the environmental suitability of the property for the lease purpose or for transfer by deed for the intended purpose, if known, including the rationale for the determination of such suitability.
- (2) A listing of specific recommended restrictions on use of the property, if any, to protect human health and the environment or the environmental restoration process. For remediated parcels, such restrictions would include those documented in the ROD under NCP or equivalent DDs. When the Army intends to use Land Use Controls (LUCs), it will provide a notice of intent to use LUCs as well as workable draft documents as they become available to the appropriate regulatory agencies. Regulatory comments received during the development of these documents will be incorporated into the final land use controls as appropriate. Any unresolved regulatory comments would be included as attachments to the FOST.

f. FOST (disposals when the Army is divesting title). The Army prepares a FOST after completion and review of the EBS; an analysis of intended use, if known; and an evaluation of the local community reuse plan (if available). The IC develops a FOST. Detailed guidance and procedures for conducting the EBS and FOST at BRAC installations are contained in current DUSD-ES FOST guidance entitled “Finding of Suitability to Transfer for BRAC Property” and the ODUSD(ES) pamphlet entitled “Fast Track to FOST.” Both can be found at the ODUSD(ES) Web site: www.dtic.mil/envirodod/brac/publish.html. The following summarizes the BRAC process to develop and obtain a signed FOST:

- (1) Notify the regulatory agencies of the initiation of the FOST process and begin to coordinate the full participation of the regulatory agencies in the environmental review process.
- (2) Review and evaluate the information contained in the EBS and determine the ECP category. Compile the relevant information and complete any data gaps. When appropriate, analyze the intended use (if known) of the property and—
 - (a) Determine the basis for the covenant required.
 - (b) Identify restrictions on future use.
- (3) Coordinate the determination of the property’s suitability for transfer with the BCT, RAB, or TRC, as appropriate. Prepare a draft FOST that includes—
 - (a) A statement that declares the property is suitable for transfer.
 - (b) Any applicable restrictions on future use.
 - (c) The results of the analysis of intended use, when appropriate.
 - (d) A statement of the notice, covenant, and access clause, where appropriate.
- (4) Notify regulatory agencies and the public of the intent to sign a FOST and make the draft FOST available to the public.
- (5) Address relevant regulatory or public comments and attach a copy of any unresolved comments when the FOST is forwarded for signature. BRAC installations must also provide signed copies of the FOST to the regulatory agencies.
- (6) For BRAC installations, must notify the public of the signing of the FOST and make documents available to the public.
- (7) To dispose property at an active (operational) Army installation, follow the same environmental review process for reaching a FOST as would be used for BRAC property. The only exception is that regulatory participation and review is encouraged but not required and the stringent deadlines described in the DOD guidance are not applicable.
- (8) The Army will sign a FOST once it determines that the property is suitable for transfer by deed for the intended purpose, if known. Signature authority has been delegated to the MACOMs for property designated as DOD ECP

categories 1, 2, 3, and 4 except property known or suspected to contain UXO. MACOMs may further delegate FOST signature authority for categories 1 and 2 to installations. The DASA(ESOH) will sign the FOST for property known or suspected to contain UXO. Properties designated as ECP categories 5 and 6 require early transfer authority (see paras b above and 15-6h). The definitions for the seven ECP categories established by DOD are found in the most recent version of the BRAC Cleanup Plan Guidebook, available at the ODUSD(ES) Web site: www.dtic.mil/envirodod/brac/publish.html). These ECP categories are applicable to all installations. (See table 15-1 at the end of this chapter for a summary of approval authorities.)

(9) Legal and administrative review of FOST. Those real estate transactions requiring HQDA signature must have the FOST reviewed by SFIM-AEC-ER prior to signature. During the staffing of the real estate action, the MACOM and HQDA environmental staffs, as appropriate, will review the FOST for concurrence. In all cases prior to staffing for signature, the signature authority shall have an attorney review the FOST.

g. *Signed FOST and EBS.* A signed FOST and EBS should be submitted with a BRAC Disposal Support Package (DSP) or with the ROE, in accordance with AR 405-90 and implementing TM. BRAC installations should work with DAIM-BO to ensure they follow the most recent guidance on procedures for processing DSPs. MACOMs may forward FOSTs signed by DASA(ESOH) to HQDA(DAIM) in draft final form within the DSP/ROE. HQDA(DAIM) will staff the DSP/ROE and receive DASA(ESOH) approval.

h. *FOSET (disposals only-sales divesting title using "ETA").* The Army prepares a FOSET after completion and review of the EBS. The Army must determine that the property is suitable for transfer for the intended reuse, the reuse is protective of human health and the environment, the deed or other transfer agreement contains the required assurances, proper notice has been provided, and the requested CERCLA covenant deferral and transfer of property will not substantially delay any necessary response actions. The IC develops a FOSET. More detailed guidance and content of the FOSET may be found in the 24 April 1998 DOD early transfer guidance at: <http://www.dtic.mil/envirodod/brac/publish.html>.

(1) CERCLA section 120(h)(3)(C)(ii) response action assurances state that the deed or other agreement that governs the transfer shall contain assurances provided that—

(a) Restrictions on the use of the property are imposed when necessary to ensure the protection of human health and the environment.

(b) There will be restrictions on the use necessary to ensure that required RIs, response action, and oversight activities will not be disrupted.

(c) All necessary response actions will be taken and identifying the schedules for investigation and completion of all necessary response actions as approved by the appropriate regulatory agency.

(d) The transferring Federal agency responsible for the property subject to transfer will submit a budget request to the director of the OMB that adequately addresses schedules for investigation and completion of all necessary response actions, subject to congressional authorizations and appropriations.

(2) The administrative processes for FOSETs are otherwise the same as those for FOSTs described in paragraph f above.

(3) For early transfers, where GSA is negotiating the transfer, the FOSET is not prepared as part of the ROE, but rather just prior to the actual transfer by GSA.

(4) Regarding the FOSET signature authority, prior to staffing the FOSET for signature, the administrative procedures are the same as for a FOST. MACOMs forward the FOSET as part of a covenant deferral request (CDR) package to HQDA(DAIM). The Army will sign a FOSET once it determines that the property is suitable for transfer by deed with restrictions for the intended purpose. The DASA(ESOH) will sign all FOSETs. (See table 15-1 at the end of this section for a summary of approval authorities.)

i. *ECOP.* The Army does not consider the transfer of property from the Army to another Federal agency for their end use to be a deed transfer. The Army must sufficiently document the environmental condition of property being transferred to another Federal agency; therefore, an EBS is required. Also, the Army requires a FOST-like document called an ECOP. An ECOP is the same as a FOST with the following exceptions:

(1) Regulatory participation/review should parallel DOD FOSL Guidance, which does not require a mandatory 30-day review, but early document sharing is encouraged.

(2) MACOMs sign ECOP for categories 1, 2, 3, and 4. MACOMs may further delegate authority for ECP categories 1 and 2 to ICs. Installation garrison commanders should make decisions on a property's suitability to lease or transfer at active installations. During the staffing of the real estate action, HQDA and the MACOMs, as appropriate, will review the ECOP for concurrence.

(3) CERCLA covenant and warranty are not required, since there is no deed.

(4) Transfer prior to all cleanup being complete is allowed and is encouraged.

(5) The Army should negotiate responsibility for environmental cleanup and compliance requirements with the Federal agency acquiring the property.

j. *FOSL (outgrants only-leases).*

(1) For BRAC, the Army will follow DOD policy on the Environmental Review Process to Reach a FOSL (also contains EBS guidance), which is an attachment to the current version of DUSD-ES memorandum, subject: Fast Track

Cleanup at Closing Installations, and Fact Sheet-Field Guide to FOSL, both available at www.dtic.mil/envirodod/brac/publish.html. The general BRAC processes for developing and obtaining an approved EBS and FOSL are as follows:

(a) Notify the regulatory agencies of the initiation of the FOSL process and begin to coordinate the full participation of the regulatory agencies in the environmental review process.

(b) Review and evaluate the information contained in the EBS and determine the ECP category. Compile the relevant information and complete any data gaps and identify restrictions on use.

(c) Determine whether the property is suitable for lease for the intended purpose. Draft the FOSL and include the following:

1. A statement that declares the property is suitable for lease: no HAZMATs or POL stored for more than 1 year; HAZMAT or POL stored for more than 1 year, but no contamination; or property contains contamination, but it can be used for the intended purpose.

2. Any applicable restrictions on use.

(d) Coordinate the draft FOSL with the RAB, regulatory agencies, and the public. Address comments and attach unresolved comments to the FOSL documentation package.

(e) Forward the FOSL to the appropriate Army official for signature and meet notification, disclosure, and recordkeeping requirements.

(f) As required by CERCLA, section 120(h)(5), for BRAC property, notify the state prior to entering into any lease that will encumber the property beyond the date of termination of Army operations. This notification shall include the length of the lease and the name of the lessee. It should also provide a description of the uses allowed under the lease of the property. At NPL sites, the Army will provide this notification to the EPA as well.

(g) For BRAC, notify the public that the FOSL has been signed.

(h) Provide the EBS and FOSL to each lessee.

(2) For property to be leased at an active (operational) Army installation, the environmental review process for reaching a FOSL is the same as for BRAC property except regulatory and public participation and review is encouraged, but not required.

(3) Signature authority for FOSLs has been delegated to the MACOMs. MACOMs may delegate FOSL signature authority for ECP categories 1 and 2 to ICs except where the property may contain UXO. (See table 15-1 at the end of this chapter for a summary of approval authorities.)

(4) The signed FOSL and EBS should be submitted with an ROA for each outgrant in accordance with AR 405-80 and implementing TM. Procedures for processing ROA packages for BRAC property can be found on the DAIM-BO Web site at www.hqda.army.mil/acsimweb/brac/braco.htm and DENIX. MACOMs have approval authority for all BRAC ROAs and for all non-BRAC ROAs, except as noted in AR 405-80.

(5) Prior to leasing Army real property, the appropriate approving official will have an attorney review the EBS and draft FOSL for legal sufficiency to ensure that the requirements of 42 USC 9620(h)(1) have been met. Those real estate leases requiring HQDA signature must have the FOSL reviewed by the MACOM and SFIM-AEC-ER prior to signature.

(6) Conditions will be included in a lease to ensure—

(a) Notification of the existence of FFA, IAG, or other regulatory agreements, orders, or decrees for environmental restoration (for example, RCRA/Hazardous and Solid Waste Amendments (HSWA) permit), if any. Terms of the lease shall not affect the rights and obligations of parties under the FFA, IAG, or other regulatory agreements, orders, or decrees.

(b) Environmental investigations and response oversight and activities will not be disrupted. Such conditions will include, but are not limited to—

1. Providing continued access to the Army and regulatory agencies so that they can perform investigations as required on, or adjacent to, the real property; monitor the effectiveness of the cleanup as required; perform 5-year reviews as required; and/or take additional remedial or removal actions as required. At a minimum, such rights shall include all rights existing under the FFA.

2. Ensuring that the proposed use will not disrupt remediation activities.

(c) Human health and the environment are protected by preventing the inappropriate use of the property.

(d) Compliance with health and safety plans.

(7) Leases will provide that both the EBS and restrictive conditions in the lease that deal with environmental requirements limiting use will also be included in subleases as they occur. Lessees must provide copies of all subleases to the Army organization with jurisdiction over the parcel, which will retain them in the transaction file and make them available to the public upon request.

k. *Lease termination.* Upon termination of any lease, or other outgrant if an EBS was originally done, the Army and the grantee/lessee will jointly conduct a final EBS. The EBS will ascertain any changes in the environmental condition of the subject property from that documented in the original EBS. If the grantee/lessee does not participate for any reason, the Army will still conduct the EBS or EBS update and provide a copy of the findings to the lessee at the cost of the lessee. For BRAC leases in furtherance of conveyance, where transfer of property to the lessee is imminent

(within a 2- to 3-year time frame), the lessee may negotiate with the Army the full responsibility for payment of the EBS. In these situations the Army should expect that the EBS used to support the original outgrant will only require updating as opposed to a new EBS. The grantee/lessee shall be made aware of this procedure in the original outgrant document. The procedures shall be the same as those for an EBS, with the following additions, as appropriate:

(1) Review Federal, state, and local regulatory agency environmental audits or inspection reports prepared during the term of the outgrant/lease.

(2) Review all documentation submitted by the lessee to Federal, state, and local environmental regulatory agencies.

(3) Review all occupational, health, or safety incident reports involving the property filed during the term of the outgrant/lease.

(4) Document all hazardous substances used, stored, or released at the property during the term of the lease.

(5) Document all HWs generated on the property during the term of the lease/outgrant and its disposition.

l. Lease renewals. For the renewal of existing outgrants/leases that previously had an EBS completed, the action proponent must determine if any changes occurred in the use or environmental condition of the subject property from that documented in the EBS. The EBS must be amended to reflect environmentally significant changes that occurred or the fact that no changes occurred. An environmentally significant change involves the storage of a hazardous substance for a year or more, a known release of such a substance, or its disposal on the property. The IC/Army proponent or appropriate approving official will review the amended EBS and provide a new certification. If there is an existing lease that is up for renewal but has not previously met the requirements of this paragraph, it must do so prior to lease renewal.

m. Acquisitions. When acquiring real property, the IC/Army proponent will review the EBS and provide a statement that the EBS has been reviewed and that the findings were found to be true and accurate based on the investigative procedures used. The IC/Army proponent will provide the EBS to the USACE district for use in negotiating and appraising the property being acquired.

n. Retention of documents. The proponent and the real estate office of the servicing USACE district will retain the EBS and FOST/FOSET/FOSL. The Army uses the EBS as a benchmark in assessing future contamination at the same site.

Table 15–1
Signature approved authorities¹

| Document | Program | |
|--------------------|----------------------------------|----------------------------------|
| | Active ² | BRAC ² |
| ECP | Garrison Commander | Garrison Commander |
| ECOP ⁵ | ECP 1-4: MACOM ³ | ECP 1-4: MACOM ³ |
| | ECP 5-7: Negotiable ⁴ | ECP 5-7: Negotiable ⁴ |
| FOST ⁵ | ECP 1-4: MACOM ³ | ECP 1-4: MACOM ³ |
| | ECP 5-7: NA | ECP 5-7: NA |
| FOSET ⁵ | ECP 5-6: DASA(ESOH) | ECP 5-6: DASA(ESOH) |
| | ECP 7: NA | ECP 7: NA |
| FOSL | ECP 1-7: MACOM ³ | ECP 1-7: MACOM ³ |

Notes:

¹ The Army official exercising approval authority over the ECOP/FOST/FOSET/FOSL is certifying that the property is compatible with the proposed use and that the use restrictions or remedies in place (if any) are protective of human health and the environment.

² ECOP/FOST/FOSL with known or suspected UXO require DASA(ESOH) approval.

³ MACOM may delegate ECP category 1-2 to installations.

⁴ Army and other Federal agency negotiate transfer condition of property and responsibility for cleanup.

⁵ Documents are not required for GSA transfers (see AR 405-90).

15–7. Environmental agreements

a. Environmental agreements, for the purposes of this paragraph, include but are not limited to consent orders, consent agreements, compliance agreements, cooperative agreements, memorandums of agreement, MOUs, IAGs, FFAs, and Federal facility compliance agreements.

b. USACE will separately promulgate guidance for the CW Program.

c. If the installation receives an ENF (for example, NOV or proposed consent or compliance agreement), the installation's environmental law specialist (ELS), in coordination with the installation's environmental program staff, should take the following steps in seeking to conclude a settlement agreement:

(1) Carefully review the ENFs to determine the validity of the alleged violation.

(2) Prepare a response identifying all disputed violations and any legal defenses (for example, sovereign immunity) and coordinate the response, including legal review where applicable, with legal offices at higher headquarters.

(3) Take appropriate action to preserve the installation's right to a hearing (for example, submit a timely answer and request for a hearing). Installation ELSs are required to seek guidance and legal review on all pleadings and significant stages of the environmental agreement negotiation process from higher headquarters and HQDA (DAJA-EL).

(4) Work closely with the installation's environmental program staff to develop a compliance plan with a realistic compliance schedule to correct violations in a reasonable and cost-effective manner.

(5) If the ENF involves a proposed fine, the installation's ELS, in coordination with the installation's environmental staff, should—

(a) Obtain copies of the penalty calculation sheets or other documentation justifying the amount of the fine.

(b) Ensure that any fine is based on valid violations and is consistent with the regulator's policy regarding environmental fines based on gravity penalty assessment criteria. Any penalty that is based on economic benefit of noncompliance or size-of-the-business penalty criteria must be identified separately.

(c) Consult with the installation's environmental program staff to identify possible supplemental environmental projects (SEPs), if appropriate, to further offset the amount of the fine.

(d) Negotiate the lowest possible fine.

(6) Initiate settlement discussions with regulators to resolve disputed violations and develop a reasonable settlement agreement. MACOM and HQDA environmental legal services should be consulted early in all environmental agreement settlement negotiations with state and/or regional EPA regulators. Before signature by the IC, draft environmental agreements will be coordinated with HQDA, DAJA-EL, Army Environmental Law Division, 901 North Stuart Street, Suite 400, Arlington, VA 22203-1837.

15-8. Environmental compliance assessments

a. External and internal assessments. The Army assesses environmental compliance at its installations/facilities and CWFs through external and internal assessments. CWF implementation guidance is published in ER 200-2-3.

(1) External assessments are conducted through the Army's ECAS Program. The program is intended to provide ICs, environmental management personnel, and their MACOMs with an independent, objective assessment (for example, audit as defined by EPA)/evaluation of the installation's environmental performance and compliance deficiencies.

(2) USAEC is responsible for the Army's external ECAS Program management, to include—

(a) Serving as facilitator/coordinator for the ECAS Advisory Committee and/or Work Group.

(b) Preparing the ECAS funding work plan, submitting active Army funding requests to the budget/POM process, and overseeing the distribution of funds (active Army only).

(c) Overseeing ECAS software development, implementation, and maintenance.

(d) Providing guidance and support to MACOMs for execution of the external assessments.

(e) Serving as liaison for the ECAS Program support with other program elements in the USAEC (for example, environmental reporting such as EPR and ISR Environment, media managers, Army environmental training, P2, etc.).

(f) Overseeing/performing QA/QC checks of external assessment data and procedures.

(g) Providing guidance and support to ODEP for policy development and implementation.

(h) Representing the active Army for the development and updating of The Environmental Assessment and Management (TEAM) protocol, Army supplement, state supplement, and user's guide.

(3) MACOMs are responsible for external ECAS assessments under their command in accordance with DA guidance and funding to include:

(a) Developing an annual and multi-year cycle MACOM funding plan to include identification of the assessor and the total costs, with justification, to execute an external assessment.

(b) Monitoring installation environmental compliance trends using ECAS data.

(c) Coordinating with assessing agencies and installations to ensure proper conduct of the assessment and adequate support for the assessment team.

(d) Performing QA/QC of assessment data.

(e) Overseeing team qualifications and preparation for the assessments.

(f) Participating on the ECAS Advisory Committee by providing MACOM with requirements and concerns.

(g) Annually developing ECAS guidance to address specific needs and goals based on trends and analysis of completed ECAS assessments, the overall MACOM environmental program, and DA ECAS Program objectives.

(h) Ensuring ECAS corrective action requirements are included in the EPR report.

(i) Augmenting ECAS assessment teams in specific media areas as required.

(j) Ensuring annual internal assessments are completed or ISR Environment is completed and submitted.

(k) Ensuring installations prepare and monitor the ICAP.

(4) ICs will—

(a) Conduct internal assessments using their own resources. Although completing and submitting the ISR Environment meets the minimum requirements for an internal assessment, the ISR Environment provides a programmatic review and does not emphasize on-site checking. Internal assessments that include on-site inspections are strongly encouraged to maximize the effectiveness of internal assessments.

(b) Provide the necessary support to the assessment team to scope the facility and in-brief, out-brief, and access documents and sites.

(c) Inform appropriate installation personnel of the assessment team's presence and encourage installation personnel to admit the assessment team to requested sites.

b. External assessments. Each active Army MACOM (CONUS and OCONUS), ARNG, and USAR will follow uniform procedures for QA/QC of data and reporting. Guidance is provided by USAEC with input and consensus from all participants of the program.

(1) All assessment teams must provide clearly written and detailed findings that include suggested corrective action alternatives, estimated cost requirements, and, where applicable, P2 alternatives. The Army's goal is to deliver the draft findings while the team is on site and complete the final ECAS data set or report, the ECAR, no more than 11 weeks after the start of the assessment.

(2) The draft ECAR will specify the assessment team's findings and recommended corrective action alternatives and/or P2 alternatives. The MACOM and USAEC media specialists will provide reviews and recommendations. The assessment team will review all recommendations before providing the final data set and/or report. The assessment team must ensure technical accuracy; the installation must validate the findings and designate appropriate corrective actions.

(3) Executive summaries for each ECAS external review must be prepared.

(a) Executive summaries will be provided to ODEP through respective MACOM headquarters along with a copy of the exit briefing.

(b) Executive summaries will be prepared by the assessing team leader and be in line with the exit briefing. They will address areas of major concern, including deficiencies with the highest potential for ENFs and fines, program management weaknesses, and systemic problems and root causes.

(c) A list of deficiencies requiring corrective action projects with estimated costs greater than \$100,000 will be included.

(d) The above information will be provided within 30 days of completion of the ECAS review and be staffed through the IC or garrison commander and MACOM chief of staff or equivalent.

(4) MACOMs will schedule external ECAS assessments at their installations no less than once every 3 or 4 years. Deviation must be approved in writing by HQDA and must be fully justified, in writing, and coordinated with USAEC. Justifications must specify the installations or facilities included in the deviation request and address the risk of adverse impacts to the environment caused by the deviation. Approvals are required for both cycle extensions and compressions. MACOMs may vary the intensity of review in a particular media to reflect the number, type, and significance of issues relating to that media present at the installation. MACOMs should consult with their installations and USAEC in developing their schedules and submit them to USAEC annually or as requested. USAEC will maintain an Army-wide schedule of all assessments for the succeeding cycle.

(5) When developing their ECAS schedules, MACOMs will also select the assessing agent to conduct ECAS assessments at their installations. MACOMs should coordinate their selection with USAEC early to ensure that the agent has the required environmental expertise in all applicable media plus an adequate knowledge of the Army to make accurate findings and propose useful corrective actions. Assessment teams must be sufficiently independent to be fully objective in their evaluation of compliance issues at the installation.

(6) The Army uses TEAM Guide and its supplements for all assessments within the U.S. and/or its jurisdictions. The TEAM Guide is the DOD standard and provides a checklist of Federal environmental requirements, DOD requirements, and EOs. The Army also uses supplements to the TEAM Guide for the three components (that is, active Army, ARNG, and USAR). The active Army has 13 user's guides focusing on major Army operations (for example, motor pools and vehicle maintenance, HAZMAT storage) available to supplement internal assessments.

(a) The three component supplements provide checklist items for the Army (laws, regulations, and MPs) plus guidance to help assessors understand the application of media requirements at the installation. An OCONUS Army supplement is provided and formatted for use in the Army-required ECAS software.

(b) All supplements use the same organization as the TEAM Guide (for example, same manual sections and subsections) and is used in the Army software. Any errors or omissions in the TEAM Guide or supplements should be reported to USAEC, ATTN: SFIM-AEC-EQS. Copies of the TEAM Guide or any supplements can be downloaded from DENIX (see para 13-4) with official authorization.

(c) The scope of the Occupational Safety and Health Act (OSHA) and other health/safety issues has been reduced. Under the ECAS Program only a limited number of OSHA regulations will be reviewed. In the TEAM Guide, the checklist items with OSHA citations (Title 29) that will be assessed are found in PM.45.2 (Pesticides), PO.45 (Service Stations), and SO.110 (Medical Waste). Issues that will not be addressed include eyewashes, fire extinguishers, hazard communication (HAZCOM), MSDs (in relation to HAZCOM), Chemical Hygiene Plans, and storage of HAZMATs

in containers and tanks (for example, flammable combustible liquids, storage of acids, storage of compressed gases). These issues are currently found in TEAM Guide sections HM.1.2 through HM.1.4, HM.10, HM.15, HM.35, HM.45, and ST.120. Assessors will not add checklist items based on OSHA regulations, National Fire Protection Act (NFPA) regulations, Compressed Gas Association standards, American National Standards Institute (ANSI) standards, TB MEDs, ARs, DODIs, or Department of Defense Regulations (DODRs) to the HAZMAT section without submitting the citation for review by USAEC for inclusion in the TEAM Guide or active Army supplement.

(d) Outside the U.S., assessors will use OCONUS protocols formatted according to the TEAM Guide scheme with criteria appropriate to the laws/regulations/standards that apply (that is, OEBGD or FGS). The Army ECAS software will be used with the OCONUS protocols.

(7) Army installations must develop and maintain a management and funding plan in response to external assessment findings and regulatory agency inspections. This is necessary to ensure that corrective actions are implemented and to avoid increasing environmental compliance liability. The management and funding plan should be finalized by the installation, approved by the IC and/or installation EQCC with MACOM notification.

(a) For the active Army and the ARNG, the Installation Corrective Action Plan (ICAP) fulfills the management and funding plan requirement. Assessment teams will submit a draft ICAP, along with the draft ECAR, using installation input while on site. However, the installation must develop and maintain a final ICAP and forward a copy to their MACOM when directed. The Army-required software produces a standard ICAP from the data set created by the assessor that may suit many installation and MACOM needs (see para 13-6 for more details). The final ICAP can be maintained as a management document to achieve compliance during the intervening years of the external assessment cycle. The Army's goal is that the ICAP be finalized by the installation and approved by the IC and/or EQCC and MACOM within 8 weeks of the receipt of the final ECAR by the installation.

(b) All installations must ensure that requirements for ECAS corrective actions that require funding are included in their annual EPR submission. The ICAP, approved by the IC and MACOM, includes the funding requirements and is the basis for the EPR submission to HQDA.

c. *Internal assessments.* The Army uses internal assessments to build upon information gathered in the external assessment (ECAS) to meet the installation environmental compliance needs. Internal assessments may also be used to follow-up on corrective actions from the external assessment, and to assess the compliance of activities/operations that were not assessed in the external assessment.

(1) Internal assessments help installation personnel understand the environmental requirements of their workplace; therefore, installation personnel should conduct them.

(2) The installation EQCC is an effective forum to organize the internal assessment effort, identify the needed personnel for conducting the assessment, and review the assessment results.

(3) Some MACOMs have established specific internal assessment reporting requirements; however, the scope of the internal assessment should be determined by the IC to meet the installation's own needs. Some generic methods and tools that should be used are described in paragraph 15-8c(7).

(4) The internal assessment process for USAR facilities will be conducted in a manner similar to that for active Army installations. The ARNG and USAR will determine the scope of the internal assessment at their facilities beyond the minimum requirements given in paragraph 15-8c(7). In foreign countries, ICs may use the methods outlined in paragraph 15-8c(7) to conduct internal assessments, but they must also adhere to MACOM, OEBGD/FGS, and DOD requirements.

(5) The duration of the internal assessment is not limited to a prescribed time period. The assessment may consist of site visits over a period of months or an entire year. Furthermore, the internal assessment should be planned to build upon/add to the data gathered in the most recent external assessment.

(6) For installations that are required to submit the ISR Environment, this report will fulfill the minimum annual internal assessment requirement. Although completing and submitting the ISR Environment meets the minimum requirement for an internal assessment, the ISR Environment provides a programmatic review and does not emphasize on-site checking. Internal assessments that include on-site inspections are strongly encouraged to maximize the effectiveness of internal assessments. ICs are encouraged to use internal assessment methods, described in paragraph 15-8c(7) below, to gather information to complete the ISR and meet their own management information needs.

(7) The internal assessment requirements for installations not submitting the ISR Environment are listed below. These same requirements are recommended to ICs who choose to complete an internal assessment beyond, or supporting, the ISR.

(a) Installations will conduct an internal assessment annually unless a deviation is approved of, in writing, by HQDA and their MACOM. Requests for deviation must be fully justified, in writing, and coordinated with USAEC by the MACOM. Justifications must specify the desired frequency of the internal assessment, identify the installations or facilities requesting the deviation, and address the risk of adverse impacts on the environment.

(b) Army installations must use the applicable USAEC or HQ, USACE approved protocols (Federal and state) and other publications in conducting the assessments. USAEC has developed a number of useful tools/reference materials that can be used to plan an effective internal assessment. More information on these materials is provided in paragraph 15-8c(7)(f) below.

(c) The scope of the internal assessment should include the following:

1. Review status of corrective actions that resulted from the last external and subsequent internal assessments. Update the ICAP to ensure that the corrective action data are as current as possible. It should include POCs for verifying corrective action status as well as funding information.

2. Review the status of corrective actions needed as a result of ENFs received since the last assessment (internal and/or external). This requirement should be examined on a daily basis as part of the installation's environmental program. However, assessors should verify that all ENFs received since the last assessment have been addressed.

3. Identify and assess the status of compliance with any new regulatory requirements enacted since the last assessment; address any special areas of concern specified by higher command. Media managers within the environmental office should be aware of any new regulations. Other sources of information include the Federal and state regulatory offices, MACOM HQ, and USAEC.

(d) Any internal assessment findings that require funding for correction must be provided to the installation's environmental office for submission into the EPR report.

(e) With the exception of the ISR, no written reports for an internal assessment are required by HQDA.

(f) USAEC has developed a variety of tools to support installations in completing their internal assessments. Support available through USAEC includes the following:

1. The TEAM Guide and supplemental protocol manuals used by the Army for external assessments and the component supplements to the TEAM Guide (active Army, USAR, and ARNG) focusing on ARs and MPs.

2. Environmental compliance user's guides are activity-specific guides (for example, motor pools, HW warehouse/storage facilities, etc.) designed to help installation personnel understand the impacts of their activity on the environment.

3. The Army ECAS software can readily be used to track findings and corrective actions from internal assessments, especially when initially populated by the external assessment data. The corrective actions and funding requirements can be added to the current ICAP, thus making this plan a dynamic management tool. (See para 13-6 for more information on the Army ECAS software.)

(g) For further information on any of these tools, contact USAEC, Environmental Quality Division, Special Program Branch, ECAS Team at Commander, USAEC, ATTN: SFIM-AEC-EQS, Aberdeen Proving Ground, MD 21010-5401; 1-800-USA-EVHL.

d. *Support from IC staff.* Both external and internal assessments require support from the IC and staff, especially the environmental management staff. Successful external assessments require command emphasis from the outset to promote cooperation and sharing of information with the ECAS team. Further commitment is required after the assessment to review the results and implement the corrective actions plus maintain the management and funding requirements plan. The installation personnel conduct internal assessments with results reviewed by the EQCC.

e. *Releasability.* Several documents and data files are generated during the ECAS process. This information may include assessor field notes, draft findings, executive summaries of external reviews, suggested corrective actions, ECAR, and ECAS software data files.

(1) Field notes, draft findings, comment documents, and data files should be marked "For Official Use Only" and their distribution handled accordingly. The Army has determined that the premature release of these documents would jeopardize the Army's interest in preserving the free flow, analysis, and comment on internal information regarding environmental compliance. Army policy, however, is that these documents should be made available to the public pursuant to the FOIA to the extent that these documents contain factual information that can be segregated from the opinion or recommendations portion of a document. Factual information within ICAPs and "final" versions of ICAPs (that is, versions with findings and recommendations that have been approved by an appropriate approving authority) should also be made available to the public. "Draft" versions of ICAPs (with recommendations that are subject to change or that have not yet been approved by an appropriate authority) may be withheld from release pursuant to Exemption 5 of the FOIA. Requests for an "active" final ICAP or release of final reports will be referred to the appropriate IC (military) or freedom of information officer.

(2) The final report, the data set or ECAR, is releasable in its entirety under FOIA. The draft and final ICAPs are releasable only in accordance with paragraph (1) above. AR 25-55 (formerly AR 340-17) should be consulted for all FOIA requests. All FOIA requests must be reviewed by the installation's servicing staff judge advocate or legal advisor prior to the issuance of a response to the requestor.

f. *Retention.* A management system is required to retain documents created during the ECAS process so that compliance with the Federal Records Act and AR 25-400-2 is obtained.

15-9. Army Environmental Awards Program

a. *Nomination procedures for Secretary of the Army Environmental Awards.* Instructions on preparation of submittals, schedules, and criteria for nomination for the installation, team, and individual awards in the categories indicated in AR 200-1, paragraph 15-10 (and by any subsequent Office of the Assistant Chief of Staff for Installation Management (OACSIM) notices) are issued annually by HQDA memorandum. Note that awards cover either 2 or 3 FYs depending on the award category. Procedures may vary from year to year but normally require the following:

(1) *Installation nominations.* Submittals should highlight the installation's specific accomplishments in accordance with criteria specific to the particular award categories.

(2) *Individual nominations.* Nominations should address the individual's special accomplishments and significant contributions to Army and DOD goals in accordance with criteria specific to the particular award categories. They should also highlight those efforts that go beyond the individual's normal job duties. Any other appropriate information, such as related professional achievements, may be included.

(3) *Team nominations.* Some award categories include the option to nominate a team rather than an individual. For the Pollution Prevention Award for a weapons system acquisition, only a team award is used. Nomination submittals should address the team's special accomplishments in accordance with criteria specific to the particular award categories. Nominated teams and team members must also meet the qualifications for team nominations for that award category in accordance with criteria specified in the notification memorandum.

(4) *Formats.* Nominations should meet the length and format requirements specified in the notification memorandum. Each nomination will include a cover page with identifying information about the submittal, as specified in the notification memorandum. Electronic submission is acceptable. See paragraph b(2) below regarding electronic submissions for the SECDEF Environmental Security Awards (DOD awards).

(5) *Submission process.* The specified numbers of copies of each nomination will be submitted, through the environmental office of the submitter's MACOM, to USAEC at the address specified in the notification memorandum. Each MACOM may submit one nomination per category or subcategory. Direct nominations to USAEC are not appropriate since MACOMs must select/approve their nominees in each category.

(6) *Selection procedures.* Judging panels for each category of award, consisting of subject matter experts from HQDA, USAEC, and other sources, will evaluate the nominations and recommend winners. Winners selected by judging panels are approved by the Secretary of the Army prior to Army-wide announcement. Winner information is also posted on the USAEC Web site (<http://www.aec.army.mil>) and DENIX.

b. Nomination procedures for SECDEF Environmental Security Awards (DOD awards). The winners of the SECDEF Environmental Security Awards are automatically the Army's nominees for the DOD awards. Direct nominations to DOD are not authorized.

(1) Army nominations are reviewed and revised prior to DOD submission. This ensures conformance to DOD formats and judging criteria, and provides Army winners with an additional opportunity to develop a competitive nomination package by addition of photographs, graphics, expanded and improved text, attractive page layouts, etc. OACSIM provides additional DOD award submission guidance and schedules via memoranda to Army winners through their MACOMs. Both MACOMs and OACSIM normally require interim reviews of draft submissions. MACOMs are required to ensure award package content is cleared for public release. OACSIM submits final nomination packages through chain-of-command to DOD. DOD announces winners approximately 1 month prior to its awards ceremony.

(2) Final nomination packages must meet DOD requirements for electronic submission and DENIX posting.

c. Secretary of the Army Environmental Quality Awards ceremony. The Army's ceremony for its environmental awards is normally held in the Pentagon during or before Earth Week in April of each year, on a day prior to the DOD awards ceremony. Winners of Army environmental awards are required to coordinate with USAEC regarding specific information for the ceremony. Information such as persons accepting the awards; Pentagon access requirements; travel to/from, lodging, and ceremony location; award rehearsal; reception; and DOD ceremony information will be collected and/or provided as requested.

d. Other environmental awards. The Army participates in other national, regional, and local environmental awards programs. Notices of upcoming award competitions are routinely provided in electronic form to MACOM environmental awards POCs. National awards may require HQDA participation in notification, selection, and/or nomination procedures. Guidance is provided by HQDA on a case-by-case basis. Installations and individuals are encouraged to participate and to publicize their successes by notifying the USAEC PAO and/or Awards Program POC. Available awards information is maintained on the USAEC Web site (<http://www.aec.army.mil>).

e. Public Affairs component. Environmental awards recognize significant contributions to environmental program excellence and provide an opportunity to transfer valuable expertise and lessons learned throughout the Army. Public Affairs initiatives that promote the visibility of Army Award nominees and winners are important to meet these goals. PAOs are encouraged to support both nominees and eventual winners by coordinating with individuals, teams, and installations to create quality nomination packages and achieve maximum awareness of successful environmental programs. USAEC Public Affairs conducts the publicity program for the Secretary of the Army and SECDEF environmental awards (paras a through c above). Guidance specific to these awards competitions is distributed to both MACOM and installation PAOs and is available on the USAEC Web site (<http://www.aec.army.mil>).

15–10. Environmental Quality Control Committee

a. Membership. At a minimum, membership of the installation EQCC will normally include the following:

(1) The installation or community commander or a designated representative who will serve as the chairperson. Active command involvement is perhaps the key component of the success of any environmental program. Chairing of

the EQCC by the installation or community commander demonstrates active command interest and involvement in the environmental program.

(2) The Director of Engineering and Housing (DEH) or DPW, or equivalent, who will act as the executive secretary of the EQCC.

(3) The installation environmental officer.

(4) Staff judge advocate or designated legal representative.

(5) The director of each major staff section of the installation or community.

(6) Representatives from the following offices or functions:

(a) Public Affairs.

(b) Medical.

(c) Safety.

(d) Surety.

(e) Range Management.

(f) Resource Management.

(g) Supply.

(h) Director of Industrial Operations (DIO) or the DOL or equivalent.

(i) Other offices may also be represented.

(7) The commander or director from each tenant unit, agency sponsor, and activity, including the DRMO.

(8) Subinstallation or subcommunity commanders.

(9) Others considered appropriate by the installation or community commander.

b. Frequency of meetings. The installation EQCC will normally meet monthly. ICs may elect to establish EQCC subcommittees or working groups that may meet monthly. In that case, the IC may choose to have the installation-level EQCC with senior staff membership meet less frequently, but at least quarterly.

c. CWFs. Their respective division, district, and laboratory commanders will determine the composition and meeting frequency of CWF EQCCs.

15-11. Construction site selection surveys

a. The following procedural information will assist in providing guidance to MACOMs and engineering and construction project managers responsible for military construction, Army (MCA); minor MCA; Army family housing (AFH) construction projects; and all other construction projects on Army installations regarding proper techniques for preconstruction site investigation and site selection procedures. This information outlines procedures for preconstruction investigation of proposed construction sites at Army installations to determine whether the site may be contaminated with HAZMATs such as volatile organics, buried wastes, and UXO. This information will improve the safety of construction projects and decrease the risk of injury to military, civilian, and contractor personnel involved in their construction. It also describes recommended investigative techniques, instrumentation, strengths and weakness of the techniques, and applicability of techniques to particular site conditions. This does not replace or obviate the need for any necessary NEPA analysis.

b. The cleanup of a site prior to construction of the MCA or AFH project is normally the function of the installation. If cleanup includes areas within the footprint of a proposed building, that portion of the cleanup will be paid for by the MCA or AFH project.

c. AR 415-15 requires that all proposed construction sites be evaluated by the installation for potential site contamination and categorized as one of the following:

(1) *Category I.* This site is located in a traditional nonhazardous location, such as in an administrative, recreation, or housing area. The installation has no reason to suspect contamination.

(2) *Category II.* Current and former industrial sites or other hazard-producing activity sites will fit into this category. This site category consists of perceived clean locations that have the potential for contamination due to either former industrial or other activities within or near the site or the uncertain nature of a site's historical usage. Surveys required for Category II sites are of a general nature to investigate the site for a wide range of potential contaminants.

(3) *Category III.* Sites located in areas known to be contaminated are included within this category. Contamination will vary; for example, a Category III site may be a known disposal site as identified in previous studies or UXO at a former range. Contaminants of concern are known, so that specific techniques can be used to verify the presence or absence of such contaminants. Siting projects in a Category III area should be considered only as a last resort after all other alternate site locations have been exhausted.

d. The procedures for construction site survey and clearance are organized in a step-wise manner. Figure 15-1, located at the end of this chapter, depicts the elements of site survey and clearance. As shown, the survey and clearance process involves a preliminary site assessment that includes records review, examination of aerial photographs, and site surface inspection to determine former usage of the site and potential for contamination. Installation master planning documents should have information/overlays showing portions of the installation affected by LUCs that restrict use of property due to environmental contamination left in place. Similar controls may also exist describing historical or

archeological restrictions. Once the preliminary assessment is completed and the site has been classified as Category I, II, or III, additional environmental survey and clearance steps are performed as indicated in figure 15-1.

(1) *Category I sites.* For sites classified as Category I, the results of the preliminary site assessment are recorded on DD Form 1391 (FY, Military Construction Project Data) and in paragraph D9, Summary of Environmental Consequences, of the Detailed Justification, and the construction project proceeds as planned.

(2) *Category II sites.*

(a) Sites classified as Category II require that several nonintrusive environmental survey methods be performed. These methods are a geophysical survey and a soil gas sampling and analysis survey. The application of geophysical methods and soil gas sampling and analysis to Category II sites is dependent on site-specific characteristics such as geology, soil types, depth to groundwater, and information regarding the types of suspected contamination. This geological and contaminant information is collected during the preliminary site assessment and is used to provide guidance for selection and design of the geophysical and soil gas survey methods. These environmental survey methods are designed based on specific details of the proposed construction project, including size of construction project and location and depth of soil excavations (for example, foundations, conduit and utility lines, and subsurface dewatering requirements). The results of the geophysical and soil gas environmental survey investigations are then recorded on DD Form 1391 and in paragraph D9, Summary of Environmental Consequences, of the Detailed Justification.

(b) Some Category II sites may exhibit contaminants and/or site geologic conditions where geophysical and soil gas methods are not effective survey techniques. This would be the case for nonvolatile contaminants, radiological contaminants, biological (infectious) contamination, and contaminated groundwater occurring at depths below the effective range of geophysical and soil gas methods. Geophysical methods and soil gas sampling are generally applicable to a wide range of potential contamination scenarios that could occur on or in the vicinity of a Category II site. In some situations, however, specific sampling and laboratory screening analysis of affected soil and groundwater are recommended. The decision to include this specific sampling in the site investigation would be made based on information collected from the preliminary site assessment (records review) and the details of the planned construction.

(3) *Category III sites.*

(a) Sites that are known to be contaminated or contain possible UXO (for example, former range areas) are classified as Category III sites. Survey and clearance procedures for these sites are conducted by specially trained personnel using specialized instrumentation and methodologies. Sites that are known to have chemical agents or munitions that may contain chemical agents also are classified as Category III sites.

(b) Sites classified as Category III will have specific known contaminants. The investigation and clearance procedures for these sites will need to be developed by the installation Environmental Office and Safety Office in coordination with the USAEC. Remediation/clearance of Category III sites will be conducted in compliance with applicable Federal, state, and local laws and regulations. Investigation and clearance of such sites may require extensive field surveys including geophysics, soil sampling and analysis, groundwater sampling and analysis, and the associated requirements for coordination with Federal and state environmental agencies. Completion of the preconstruction survey and remediation of a Category III site and its vicinity could take a number of years. Therefore, it is recommended that Category III sites be avoided when other more suitable building sites are available. Investigations will be site-specific and focused on contaminants of concern. As with Category II sites, the details of the particular construction project will serve to guide the design of the survey and clearance procedures.

15-12. Army Environmental Training Program

[Reserved]

15-13. Installation/civil works facility/state environmental training plans

a. The strong recommendation for comprehensive installation environmental training programs and for written plans guidance that support them is stated in AR 200-1, paragraph 15-14. Installations are requested to forward a copy of any written plan or guidance approved by the IC to the USAEC or EARC for use in providing examples to other parts of the Army.

b. Due to numerous mandatory environmental training requirements (those specified by law or regulation, permit, or compliance order, and for environmental compliance officers assigned in accordance with AR 200-1), and to address numerous overlapping environmental and SOH mandatory training requirements, installations and civil works facilities (CWFs) need to develop a comprehensive approach to environmental training. A comprehensive written plan may also be necessary. However, the minimum necessary requirement is for commanders and/or supervisors to be provided with written information indicating which persons or positions require which training and how to get the necessary training. Regulations that mandate environmental or closely related SOH training include but are not limited to those indicated in table 15-2, located at the end of this chapter.

c. A comprehensive program and, if appropriate, an associated written plan for accomplishing environmental training should address, at a minimum, how the organization will accomplish the following:

- (1) Technical environmental and related SOH training required by Federal or state law or regulation.
- (2) Any additional training requirements specified in a permit or compliance agreement.

(3) Mandatory training recordkeeping and tracking procedures associated with these requirements.

(4) Training for organization/unit environmental compliance officers assigned in accordance with AR 200-1, paragraphs 1-27a(15), 1-29c(5), 1-31f, and 1-32f. (See further guidance in para 15-17d of this publication.)

(5) Other installation- or state-specific environmental awareness training needed to support the Army's environmental strategy. Current recommendations will be available from the USAEC or EARC; MACOMs are authorized to suggest or require specific environmental training or courses.

d. Development of a training program and plan should be a coordinated effort. At military installations it should include civilian and military training offices within the civilian personnel office (CPO) and the Directorate of Plans, Training, Mobilization, and Security (DPTMS) or equivalent; the environmental, safety, preventive medicine, and fire department staff; and other relevant mission and support organizations, including all other relevant members of the EQCC.

e. The installation strategy for developing a comprehensive statement of local training requirements should consider the training needs of all table of distribution and allowances (TDA) organizations and table of organization and equipment (TO&E) units. It should include tenant organizations and supported ARNG and USAR units. The strategy may include resident military dependents and organizations operating on post under lease or license arrangements. It should include training and awareness solutions already available from Army schools and environmental agencies.

f. The IC may consider designating a lead agent for the creation of the training plan other than the installation or state EC, if appropriate, based on current staff resources. USACE commanders may develop generic plans for site specific adaptation throughout their organizations.

g. Installation environmental management plans (such as HW or asbestos management plans) and/or permits normally include environmental training components. These may be referenced rather than repeated in a comprehensive environmental training plan. Training provided for such regulated programs must include local operational details specified in the relevant plans. Such training, if provided through outside sources such as contractors or an Army school, must be supplemented by documented specific local requirements or training to ensure compliance.

(1) Requirements in 40 CFR and 29 CFR for SOH, HW management, emergency response training, and related transportation training requirements in 49 CFR can appear to overlap and may be confusing to interpret. Regulatory requirements should be carefully evaluated against individual job duties to avoid over or under training.

(2) For example, requirements for training an HW accumulation point operator at a motor pool vs. a person managing a permitted over-90-day HW storage facility might appear to be identical on an installation with a TSDF permit. Both OSHA (29 CFR 1910.120(p)) and EPA (40 CFR 264.16 and 40 CFR 165.16) requirements apply to the permitted organization (the installation). OSHA's 24-hour initial/8-hour annual refresher training for TSDFs is specifically SOH-oriented. EPA's RCRA initial/annual refresher requirement (no time length specified) applies to both unpermitted large quantity generators that accumulate HW (40 CFR 262.34(a)(4)) and permitted TSDFs. This training normally would address SOH, but specifically requires persons managing HW to perform their duties in accordance with RCRA regulations and to respond safely in an emergency. The breadth of duties and degree of hazard may be much greater for a storage facility operator or for a person operating a large consolidated "less-than 90-day accumulation point," than for a person managing a 55-gallon accumulation point at a motor pool or craft shop.

(3) Installations can clarify appropriate training for each type of position (including additional-duty assignments) by addressing such distinctions in their permits or in their HW standard operating procedures in the case of nonpermitted facilities. In doing so, the installation should take into consideration the degree of advisory support available to such persons, choices made in assigning unit/organization environmental compliance officers to various organizational levels, the installation's compliance status and state regulatory climate, and other factors appropriate to its own situation.

h. In addition to the minimum content, a training plan should also include any current environmental awareness briefings by the EC. It may contain recommendations for other environmental training to support the installation environmental mission. At a minimum, a plan should show, in easy-to-use graphic format, what organizations, units, or persons require which training and how often. If this is only part of the plan, it may be designed for separate dissemination to those organizations and units.

i. The plan should be updated after major mission changes and as weaknesses are found in the plan through inspections, audits, assessments, or ENFs that identify systemic training deficiencies.

j. In describing recordkeeping, the plan should state responsibilities, procedures, and locations for maintaining training records for persons required by regulation or permit to receive recurring training (for example, HW handlers, asbestos inspectors, etc.). Recordkeeping for on-the-job training should also be specified.

k. The IC should also consider addressing the following in the plan:

(1) Resources and funding issues and EPR Report project definitions. Consult chapter 13 of this publication and other current Army guidance on the EPR Report in regard to identifying training requirements in the EPR Report. Even though training prescribed by environmental laws/regulations, permits, or compliance agreements should be "must fund," optimal training length and delivery method for different audiences should be considered so that cost-effective approaches can be obtained.

(2) Recommended or required training content, courses, and sources. For environmental staff, this section may

address both the general management and technical environmental training needed for individual development plans and/or career management plans.

(3) Information on access to local, school-based, or contractor training and training available from other installations, local universities, or community colleges, if appropriate.

(4) Any other training or awareness approaches appropriate to maintain compliance and support P2, conservation, and restoration efforts.

l. Installations are encouraged to establish a limited or comprehensive environmental train-the-trainer approach to accomplishing mandated training, including training for environmental compliance officers. Tenants and supported facilities should participate in training programs established by the parent installation, avoiding development of separate basic training for their environmental compliance officers. Organizational specifics should be added, including details for facilities in different states.

m. Organizations developing new courses specific for their installations or state must coordinate with their MACOM environmental office, which continues the coordination with HQ U.S. Army Training and Doctrine Command (TRADOC), prior to course development. USAEC must also be notified in accordance with AR 200-1 to ensure HQDA is made aware of Army requirements as identified in the field. Installation-specific training is recognized as necessary for selected personnel to ensure regulatory compliance. Installation-specific details in awareness programs also support all aspects of the Army environmental program. However, coordinating with TRADOC will ensure that installations are provided with the most current information on available training resources before expending installation funds on developing duplicate training and products. Coordination will, in many cases, involve as little as a telephone call. In other cases, followup arrangements with appropriate schools may be made to ensure the installation or organization gets access to the right training or gets the opportunity to arrange for a tailored version of an existing course. Proposed new courses may also be established through proper initial coordination, followed by formal proposals through appropriate training channels.

n. Information for environmental awareness and training programs at installations is available from EARC.

(1) EARC in Huntsville, Alabama, is located and operated by the USACE PDSC. USACE operates EARC for the Army on behalf of the DEP and USAEC.

(2) Current EARC services to MACOMs, installations, and individuals include provision of copies of/access to the Defense Services Directory of Environmental Training and Education, information on schedules of courses in the directory, assistance in producing integrated training area management (ITAM) and other environmental awareness products, etc.

(3) EARC inquiries should be made to the following address: Chief, USACE PDSC, ATTN: CEHR-P-ET, P.O. Box 1600, Huntsville, AL 35807-4301.

15–14. Army Energy Program

Policy and regulatory guidance for the Army Energy Program are provided in AR 11-27 and the Army Energy Resources Management Plan, respectively. Conservation of energy resources should be a consideration in P2 planning, programs, and activities.

15–15. National security emergencies and exemptions

A number of environmental statutes contain exemptions from their provisions in the interest of national security. Table 15-3, located at the end of this chapter, depicts the primary laws, the standard for invoking the exemption, and the ultimate approval authority.

15–16. Criminal enforcement

a. Federal employees are not immune from Federal prosecution for violations of environmental laws and regulations. Failure to achieve and maintain compliance could result in temporary restraining orders or injunctions, curtailments, fines, or imposed penalties. Penalties include fines and incarceration. The following are criminal acts under the most commonly enforced Federal environmental statutes:

(1) *CERCLA*, 42 USC 9603(b), (c), and (d)(2). Failure to notify the National Response Center of a release of a hazardous substance; knowingly reporting false or misleading information; or the knowing destruction of, or falsification of, specified records.

(2) *RCRA*, 42 USC 6928(d) and (e). Knowingly—

(a) Transporting or causing to be transported HW to an unpermitted facility.

(b) Dealing with HW without a permit or in violation of a permit, regulation, or standard.

(c) Omitting material information or making a false material statement or representation in specified documents.

(d) Destroying, altering, concealing, or failing to file any compliance document.

(e) Transporting (or causing to be transported) any HW without the required manifest.

(f) Exporting HW without the consent of a receiving country or in a manner not conforming to international agreements.

(g) Dealing with used oil not identified or listed as a HW under RCRA, in violation of a specified provision, while

knowing at the time that dealing in such a way places another person under imminent danger of death or serious bodily injury.

(3) *CWA, 33 USC 1319(c).*

(a) Negligently violating specified permit conditions/limitations or negligently introducing a pollutant or hazardous substance into a sewer system or POTW while knowing that such a substance could cause personal injury, property damage, or the POTW to violate effluent limitations or conditions.

(b) Knowingly making false statements, representations, or certifications in specified documents.

(c) Falsifying, tampering with, or rendering inaccurate certain monitoring devices or methods.

(4) *TSCA, 15 USC 2615(b).* Knowing or willful failure to—

(a) Refuse to comply with any rule, order, or requirement relating to the testing of chemical substances and mixtures; the manufacture and processing of chemical substances; or the regulation of hazardous chemicals and mixtures.

(b) Use for commercial purposes a chemical or mixture known to have been illegally manufactured, processed, or distributed.

(c) Establish or maintain required records; submit reports, notices, or other required information; or permit access to or copying of records required by TSCA.

(d) Allow entry or inspections as required by TSCA.

(e) Comply with any of the requirements of subchapter IV regarding lead exposure reduction.

(5) *Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) 7 USC 136(b).* Knowingly distributing or selling any pesticide or device known to be in violation of any of the requirements of subchapter II of FIFRA.

(6) *Endangered Species Act (ESA), 16 USC 1540(b).* Knowingly violating any provision, permit, or certificate issued pursuant to the ESA or any regulation regarding the—

(a) Importation, exportation, taking, possession, sale, transport, delivery, receipt, or shipment of any endangered species.

(b) Importation, exportation, removal, damage, destruction, delivery, receipt, transport, or shipment of any endangered plant.

(7) *SDWA, 40 CFR part 145.*

b. The element of knowledge in these statutes can be established by direct evidence, such as where an individual was specifically told of the fact at issue or by circumstantial evidence indicating that the commander or subordinate manager was aware of deficiencies and failed to take appropriate action. Furthermore, in some instances, evidence that an individual shielded himself or herself from information that he or she should have known is admissible to prove that he or she was in possession of the actual knowledge.

c. Army installations and CWFs will pay reasonable administrative fees to state and Federal agencies to cover administrative costs for benefits received under permitting and inspection programs, but will not pay taxes, which include taxes distinguished as fees. Installations and CWFs will not pay any fines or penalties assessed under statutes in which Congress has not clearly and unequivocally waived the Federal government's sovereign immunity.

d. All personnel will ensure that all instances of noncompliance with environmental laws and permits are reported through the chain-of-command. A correction may be dependent on major construction, budget submission, or other long-range programming and execution requirements. Personnel will identify funding requirements and the deadlines for implementing—

(1) Pollution abatement measures.

(2) Natural and cultural resources protection activities.

(3) SOH training and periodic health monitoring of personnel working on environmental projects.

(4) Other related activities.

e. Stopping the activity or negotiation of an exemption with the appropriate state or Federal authority is required. Such actions will avoid continued violation of applicable criminal statutes. In circumstances where national security interests mandate continued operation without correction, an exemption on such grounds must be sought through command channels. The President is the sole authority to grant most but not all such exemptions. Funding delays will not be a basis for requesting an exemption, unless Congress has been asked to appropriate funds for this purpose and has not done so.

f. See paragraph 15-7 for guidance on environmental agreements with state or Federal authorities.

g. ENF requirements will be reported and resolved as identified below.

(1) In addition to EQR submissions, installations will report ENFs through legal channels, as follows:

(a) Hard copies of the notification of new ENFs in which a fine or penalty has not been assessed are to be sent to the MACOM within 48 hours.

(b) ENFs in which a fine or penalty has been assessed must be reported within 24 hours through the MACOM Environmental Law Specialist to HQDA, OTJAG, ATTN: DAJA-EL, 901 N. Stuart Street, Arlington, VA 22203-1837. MACOMs must then immediately report receipt of the fine to HQDA ODEP, ATTN: DAIM-ED-C, 600 Army Pentagon, Washington, DC 20310-0600.

(c) Any ENF, fine, or spill which is likely to draw media attention or impacts the surrounding community should be reported to the MACOM immediately. The MACOM is to then notify HQDA through the USAEC, ATTN: SFIM-AEC-NR, 5179 Hoadley Road, Aberdeen Proving Ground, MD 21010-5401.

(d) Installations will notify their installation ELS of all significant activity on open ENFs. For purposes of this section, significant activity is any meaningful progression of the ENF through negotiations or contested proceedings. In addition, installations will send to the MACOM ELS, 15 days prior to the close of each quarter, a detailed summary of the status of all active ENFs taken against the installation in which a fine has been assessed.

(2) Installations with open ENFs must immediately notify the appropriate regulatory agency upon completion of all necessary/required corrective actions. Notification must be made by return receipt mail, requesting regulator resolution within 60 days. Notification must be in the form of a letter containing a complete description of the deficiencies and associated corrections. Request that the regulatory agency provide written confirmation of ENF resolution to resolve and close out the ENF. Phone calls to regulatory officials giving advance notice of the letter and follow through coordination could be helpful and effective. Installations will notify their MACOM and update the EQR when the ENF is resolved.

(3) Resolve ENFs under any of the following methods:

(a) The installation receives written notification from the regulatory agency that the action is resolved within 60 days. This is the preferred method.

(b) The installation receives a telephonic/oral confirmation from the regulatory agency that the action is resolved within 60 days. A Memorandum for Record must be prepared noting the date, time, regulatory POC, and summary of the conversation. The Memorandum for Record will then be filed with the ENF.

(c) Notify the regulatory agency when corrective actions required to close the ENF are completed. If the notification is telephonic, record the conversation in a Memorandum for Record to be filed with the ENF at the installation.

(d) Develop a corrective action plan, in partnership with the applicable regulatory agency, with a timeline for completion for ENFs that require long-term measures to close. The corrective action plan only administratively resolves the ENF. The installation must still meet all corrective action milestones on time or risk the issuance of a second ENF and possible fine.

(e) The installation notifies the regulatory agency in writing of completion of all corrective actions and provides 60 days for resolution. If the regulator does not reply within 60 days, a Memorandum for Record noting the action is considered resolved will be filed with copies and receipts from notifications. This method will be used after attempts to use other methods have failed.

(f) The installation and regulator enter into a written Compliance Agreement resolving all alleged violations in the ENFs. Such an agreement can include future corrective measures or environmental projects. Once a Compliance Agreement has been signed, all ENFs included in the Compliance Agreement are considered administratively resolved.

15–17. Environmental compliance officer

a. AR 200-1, chapter 1, requires ICs (see AR 200–1, para 1-27), tenant commanders (see AR 200–1, para 1-29), facility managers and commanders of subinstallations and supported facilities (see AR 200–1, para 1-31), and unit commanders (see AR 200–1, para 1-32) to assign environmental compliance officers at appropriate levels. State adjutants general, commanders of USAR RSC, and CW division, district, and laboratory commanders are also covered by AR 200–1, paragraph 1-27. This requirement reflects a practice that has already become common among installations with strong environmental programs. Tenants and remote facility commanders may obtain exceptions from the IC, if appropriate, as specified in AR 200-1, paragraphs 1-27, 1-29, and 1-31. CW guidance is in ER 200-2-3, chapter 2.

b. Installation environmental staff members provide compliance oversight and assistance for the installation as a whole. (The state ARNG environmental office provides equivalent support to the entire state ARNG organization.)

c. The use of “environmental compliance officer” as a title is not mandatory. Commanders may choose to use titles such as “hazardous materials/waste team member,” “P2 and control officer,” “maneuver damage control officer,” or any other terms appropriate to describe the majority of environmental duties performed by assigned individuals.

d. Commanders should assign environmental compliance officer duties to persons with ranks/grades appropriate to the organization’s or unit’s missions, numbers and types of compliance requirements of that organization or unit, and amounts and types of training to be required (including training mandated by law or regulation). Commanders should specify the degree of authority conferred upon the compliance officer in making the assignments. In regard to assignments of compliance officers in TO&E units, commanders should consider—

(1) The G3/S3 organizations are consistently involved in all training and operational planning. As such, they are more appropriate to identify environmental compliance issues associated with field operations, not just garrison facilities.

(2) AR 710-2 assigns the G4/S4 organization specific responsibilities for HAZMATs and HW.

e. The IC has the option of creating separate civilian positions to perform compliance duties for large organizations. However, for all military units and for many civilian organizations, compliance officer activities have normally been additional assigned duties. In either case, specific duties and limitations should be provided to the individual, as with

any job assignment. Commanders should also consider assigning alternate compliance officers in the event of the normal assignee's absence.

f. Where an organization's civilian compliance officer assignments are highly important to overall installation compliance success and/or will normally require training or certification mandated by environmental law or regulation, commanders should add environmental duties and qualifications to specific civilian job descriptions. Selection criteria for such positions may include environmental capabilities, previous environmental training, and previous assignments with environmental agencies, etc., which would indicate an applicant is more highly qualified for the job.

15–18. Integrated training area management

The proponent for ITAM is the Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS) (see AR 200-1, para 1-12). Policies for the program are in AR 350-4.

15–19. Sampling and laboratory analysis

a. Scope. This paragraph outlines considerations in performing environmental sampling and obtaining analytical services that will help ensure that high quality data is available for critical decisionmaking and to meet compliance requirements.

b. Sampling and analysis planning. Quality sample testing data is essential in order to identify and quantify substances that may pose a health hazard in work and natural environments and to assess the impact of exposure to such materials. Both the sampling and analysis steps are critical to obtaining useful, accurate data and require careful planning and coordination with all involved parties. In that regard, determine who will use the sample testing data and for what purposes before collecting samples. Sampling and analysis procedures are often specified by regulators (state, Federal) or Army environmental program protocols (for example, the IRP). Data user requirements will drive the sampling and analysis procedures and must be the focus of any planning effort. The servicing laboratory should also be involved in the planning phases of a sampling event. They should be consulted in the selection of the proper analytical method, sampling media, and preservative required to attain accurate and precise information to meet regulatory compliance needs and to provide valid data for hazard assessments.

c. Selecting a testing laboratory. Selection of a qualified laboratory requires careful evaluation of a laboratory's credentials and accreditations as well as their performance. There are a wide variety of commercial and Federal laboratories available for use that vary in their ability to perform laboratory analysis and related services. The laboratory must be qualified to perform the required analysis with a documented, demonstrated ability to attain results that will meet the required data quality needs.

d. Laboratory quality. The requestor must ensure that the prospective laboratory is qualified to perform the required laboratory work.

(1) Determine if the prospective laboratory holds an appropriate accreditation from a third party assessor and is certified for the specific parameters required.

(a) Accreditations indicate that the laboratory has a quality system in place and that it is followed to produce consistent quality results. Performance of accredited laboratories is measured by assessing results from external and internal audit samples. National laboratory accrediting organizations include the American Industrial Hygiene Association (AIHA) and the American Association for Laboratory Accreditation (AALA). Individual states also offer certifications for certain laboratory tests; these states usually require that compliance samples be analyzed by state certified laboratories. Some accreditations are for very specific parameters like the Environmental Lead Laboratory Accreditation Program (ELLAP) for lead in soil, dust, and paint and the National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos.

(b) The requestor must verify that the prospective laboratory holds a general accreditation/certification and that the specific analytical parameters desired are covered by the accreditation/certification. Laboratories accredited by AIHA and AALA are accredited to perform selected categories of tests such as asbestos fiber counting, herbicides, and volatile organic compounds. The same is true for state certified laboratories. The parameters covered are included in the accreditation/certification documents and should be provided upon request.

(2) Performance of the selected laboratory should be monitored with various quality control samples to include split or duplicate samples, samples spiked with known quantities of material to be analyzed, and blanks (samples with no analytes present).

e. Laboratory resources.

(1) The local preventive medicine service provides limited laboratory testing for drinking water samples.

(2) USACHPPM provides a full range of laboratory support services to include sample analysis, consulting services to assist with the selection of proper sampling and analysis procedures, interpretation of results, selection of laboratories to perform sampling analysis, quality assurance assessments, and assistance in contracting and monitoring laboratory sciences. Capacity is limited and prior arrangements should be made directly with USACHPPM.

(3) The installation Department of Public Works may also provide laboratory services.

(4) Commercial testing laboratories provide a wide variety of laboratory services available under contract. Requirements for contracted laboratory services should define acceptable data quality, and the contract award should be based upon qualifications and demonstrated contractor performance and not solely on price.

15–20. Pest Management Program

Pest management program requirements are addressed in AR 200-5. CWF requirements are contained in ER 1130-2-540.

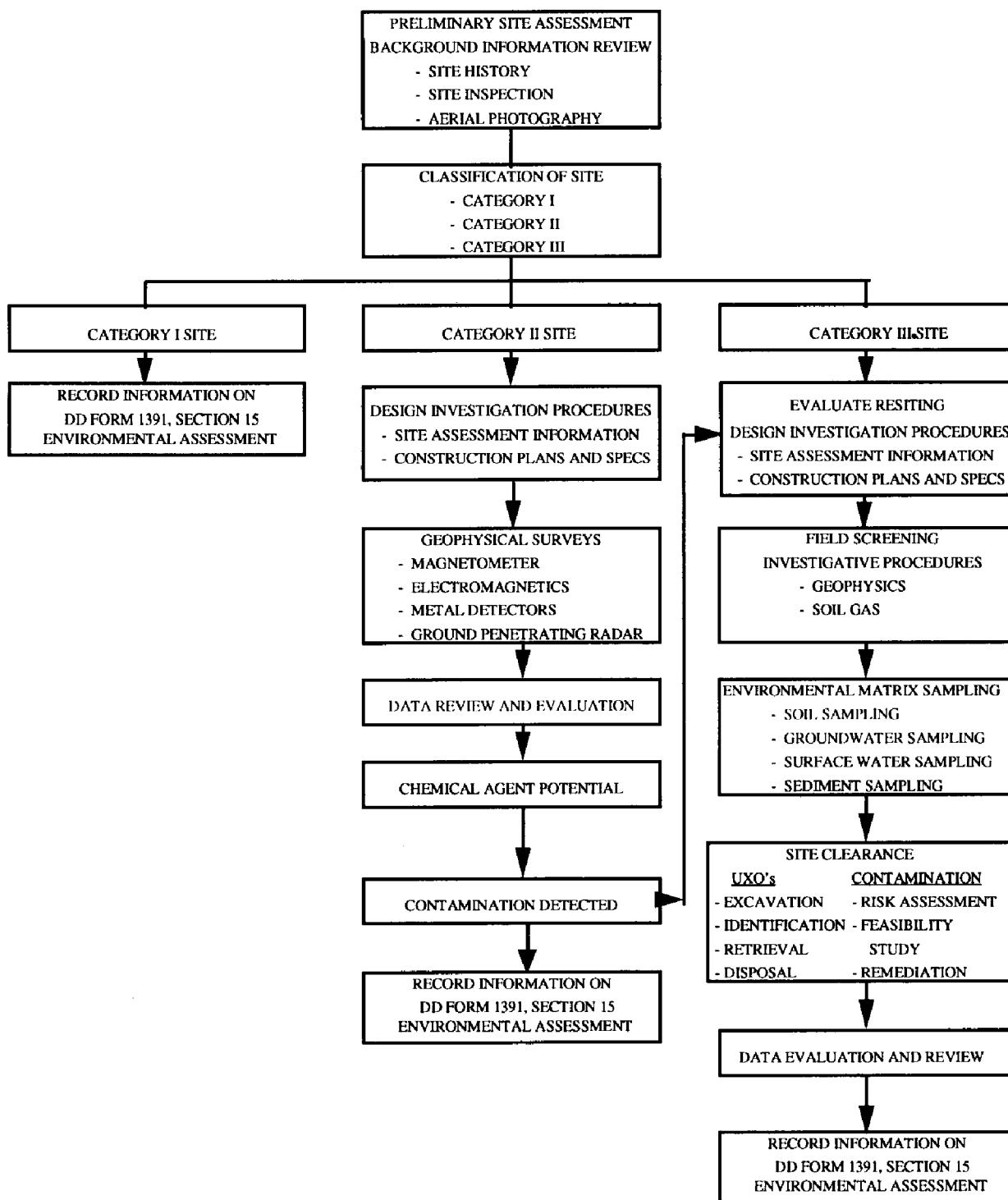


Figure 15-1. Conceptual elements of site investigation and clearance

Table 15-2
Environmental and related safety and occupational health (SOH) training regulations

Topic/regulatory area: Air quality

Subtopic: Ozone-depleting substances/chemicals (ODS/ODC)

Applicable personnel: Air conditioner/refrigerant technicians. May include persons performing maintenance/repair on mobile or stationary equipment. Operators of air pollution sources (facilities and/or equipment)

Regulatory citations: 40 CFR 82.34(a)(2), 40 CFR 82.40, 40 CFR 81.161

Comment: State-specific requirements may also apply.

Topic/regulatory area: Air quality

Subtopic: Other

Applicable personnel: Operators of air pollution sources (facilities and/or equipment)

Regulatory citations: AR 200-1, para 6-3a(6)

Comment: Training and/or certification to meet statutory and regulatory requirements and minimize emissions from those sources. State requirements typically apply.

Topic/regulatory area: Air quality

Subtopic: RMPs

Applicable personnel: Employees operating regulated equipment/processes

Regulatory citations: 40 CFR 68.51, 40 CFR 68.54

Comment: Operators of equipment covered by an RMP are trained in the safe operation of the equipment from startup to shutdown.

Topic/regulatory area: Asbestos

Subtopic: Various operations

Applicable personnel: Asbestos inspectors, abatement designers, abatement workers, etc.

Regulatory citations: AR 200-1, para 8-3f; 40 CFR 763.92 and appendix C to subpart E; 40 CFR 763.121(b); 40 CFR 763.121(e)(6)(ii)(F); 40 CFR 763.121(k)(3)-(4)

Comment: State certification may be required. Certification must be by accredited training provider.

Topic/regulatory area: Emergency response

Subtopic: Response to spills/releases of oil and/or hazardous substances

Applicable personnel: Installation emergency response/spill team members (often called the HAZMAT team)

Regulatory citations: 40 CFR 112.21 and appendix section 1.8.2; 29 CFR 1910.120(q); AR 200-1, para 3-3d(4)

Comment: Annual training; hours vary. "HAZWOPER" spill team requirements at 29 CFR 1910.120(q) specifies five training levels depending on degree of responsibility. Note: different personnel may require additional specialized training, for example, firefighters, pressurized cylinder/tank specialists, etc., as required. Specialized training (not cited) is also needed for personal protective equipment, confined space entry, and bloodborne pathogen exposure.

Topic/regulatory area: Emergency response

Subtopic: Response to spills/releases of oil and/or hazardous substances

Applicable personnel: Personnel at facilities covered by an SPCCP and FRP

Regulatory citations: 29 CFR 1910.120(q) level 1 (awareness) minimum, higher levels as required; 40 CFR 109.5; 40 CFR 112.7; 40 CFR 112.20-21 and appendix F; AR 200-1, para 3-3d(4). (Also see entries for HAZMAT and HW.)

Comment: Annual exercise of SPCCP/FRP plus other required training. Applies to HAZMAT team for overall installation response and to persons not on HAZMAT team for their own specific facilities.

Topic/regulatory area: Environmental compliance, general

Subtopic: Environmental compliance officers

Applicable personnel: Personnel appointed as unit/organization environmental compliance officers

Regulatory citations: AR 200-1, para 1-27a(15); AR 200-1, para 1-29c(5); AR 200-1, para 1-31f; AR 200-1, para 1-32e-f; AR 200-1, para 1-33d

Comment: Training in compliance topics applicable to their organization, and training in unit/organizational compliance assessment tools/techniques.

Topic/regulatory area: Environmental compliance, general

Subtopic: Environmental compliance and awareness

Applicable personnel: Other personnel who perform actions with environmental implications or consequences

Regulatory citations: AR 200-1, para 1-27a(14); AR 200-1, para 1-32b,c,e; AR 200-1, para 1-33b,d

Comment: Training/awareness sufficient to ensure performance in compliance with environmental law or regulations.

Topic/regulatory area: Environmental compliance OCONUS

Table 15–2**Environmental and related safety and occupational health (SOH) training regulations—Continued**

Subtopic: Environmental compliance and awareness

Applicable personnel: Personnel who perform actions with environmental implications or consequences

Regulatory citations: AR 200-1, para 14-9; OEBGD and FGS

Comment: Training to ensure adequate understanding/compliance with pertinent FGS or OEBGD standards; including training requirements under host nation laws, general environmental awareness training.

Topic/regulatory area: Environmental restoration

Subtopic: Uncontrolled HW sites

Applicable personnel: Personnel performing operations on site that could expose them to hazardous substances or safety or health hazards

Regulatory citations: 29 CFR 1910.120(e)

Comment: “HAZWOPER” 40-hour initial training (24 hours in limited circumstances) plus 3 days supervised field experience, 8-hour refresher, 8-hours additional manager’s training. “On site” refers to a contaminated site addressed under the DERP.

Topic/regulatory area: Hazardous chemicals

Subtopic: Hazardous chemicals generally; MSDSs

Applicable personnel: Persons exposed to hazardous chemicals on the job

Regulatory citations: 29 CFR 1910.1200(b)(1), 29 CFR 1910.1200(e)(1), 29 CFR 1910.1200(h), AR 200-1, para 15-14a

Comment: “Hazard Communication” or “Worker-Right-to-Know” at initial job assignments and whenever hazards change.

Topic/regulatory area: HW

Subtopic: Hazardous waste generators

Applicable personnel: Personnel who manage (or handle) HW

Regulatory citations: 40 CFR 262.34(a)(4), 40 CFR 262.34(d)(5)(iii) referring to 40 CFR 265.16

Comment: Annual training in HW requirements of their job and measures to take during emergency.

Topic/regulatory area: HW

Subtopic: HW treatment, storage, or disposal facility (TSDF)

Applicable personnel: Personnel who manage (or handle) HW

Regulatory citations: 29 CFR 1910.120(p)(7) and (p)(8)(K)(iii), 40 CFR 264.16, 40 CFR 265.16

Comment: Annual training in HW requirements of their job and measures to take during emergency. “HAZWOPER” TSDF health and safety training; 24-hours initial, 8-hour annual refresher.

Topic/regulatory area: HAZMAT or HW

Subtopic: HAZMAT or HW transportation other than air

Applicable personnel: Persons who identify, package, label, mark, sign shipping papers/manifests, load/unload, or move HAZMATs or HW in transportation

Regulatory citations: 49 CFR 172.700-704; 49 CFR 173.1(b); 49 CFR 173.403(i); 49 CFR 174.7(b); 49 CFR 175.20(b); 49 CFR 176.13(b); 49 CFR 177.800(c); 49 CFR 177.816; 49 CFR 177.825. (Also see AR 200-1, para 5-3c(2).)

Comment: Initial and biennial refresher training in HAZMAT familiarization, function or job-specific training, and safety training. OSHA or EPA training may be used to satisfy portions of the requirement.

Topic/regulatory area: HAZMAT or HW

Subtopic: HAZMAT or HW air transportation

Applicable personnel: Persons who sign shipping papers for air shipments. (Note: Army references also address other aspects of shipping military-unique materials.)

Regulatory citations: Federal Aviation Administration requirements as specified by DOD. Army references are AR 55-355 and TM 38-250.

Comment: Biennial training (specified courses and passing grade) including written assignment by commander.

Topic/regulatory area: Lead

Subtopic: LBP

Applicable personnel: Persons who inspect, perform risk assessments, or abate LBP in housing and child-occupied facilities

Regulatory citations: 40 CFR 745.223; 40 CFR 745.225-226; 40 CFR 745.227(a); AR 200-1, para 4-6h

Comment: Certification must be by accredited training provider. State certification may be required.

Topic/regulatory area: PCBs

Subtopic: PCB operations

Applicable personnel: Personnel who handle or may potentially be exposed to PCBs (for example, spill response teams, electricians, persons working with hydraulic equipment)

Regulatory citations: AR 200-1 para 4-4c

Comment: Training must be sufficient so personnel can perform PCB-related responsibilities in a safe and environmentally sound manner.

Topic/regulatory area: Pest management

Table 15–2
Environmental and related safety and occupational health (SOH) training regulations—Continued

Subtopic: Application of regulated pesticides

Applicable personnel: Personnel applying pesticides identified for restricted use under FIFRA

Regulatory citations: 40 CFR 170-171; DODI 4150.7; DOD 4150.7-M; DOD 4150.7-P

Comment: Initial training at DOD accredited courses and refresher training every 3 years.

Topic/regulatory area: Storage tanks

Subtopic: Underground tank installation

Applicable personnel: Personnel supervising tank installations. (State requirements may also apply to tank system designers, operators, and removers and to operations and maintenance.)

Regulatory citations: AR 200-1, para 4-5g

Comment: Personnel must be trained and qualified as needed for specific duties and state certified if required.

Topic/regulatory area: Water/wastewater treatment

Subtopic: Plant operators

Applicable personnel: Operators of water, wastewater, and industrial treatment plants

Regulatory citations: AR 200-1, para 2-7a

Comment: Training as needed or required including state operator certification as applicable.

Table 15–3
Environmental laws and national security exemptions

Statute: CAA

Citation: 42 USC 7418(b)

National Security exemptions: Yes

Actor: President

Provision: The President may exempt any emission source of any executive department agency from compliance with a requirement regarding a discharge or pollutants when the President determines it is in the paramount interest of the U.S. to do so. No exemption may be granted from 42 USC 7411 and exceptions to 42 USC 7412 must be based upon a determination by the President that no technology exists to implement the standard to be waived, as well as it being in the paramount interest of the U.S.

Statute: CAA

Citation: 42 USC 7588(e)

National Security exemptions: Yes

Actor: SECDEF

Provision: EPA may exempt vehicles from clean fuel requirements when the SECDEF certifies that the exemption of these vehicles is necessary in the interest of national security.

Statute: CAA

Citation: 42 USC 7606(d)

National Security exemptions: Yes

Actor: President

Provision: The President may exempt any contract, loan, or grant from all or any prohibitions on procuring of materials, goods, or services from persons convicted of violating the CAA where the President determines such exemption is necessary and in the paramount interest of the U.S., and he shall notify the Congress of such exemption.

Statute: CAA

Citation: 42 USC 7671c(f)

National Security exemptions: Yes

Actor: President

Provision: The President (to the extent consistent with the Montreal Protocols) may issue orders on the production and use of enumerated CFCs and halons as may be necessary to protect national security to include an exemption from any prohibition or requirement contained in this section. The exemption may not exceed 1 year and must be reported to Congress within 30 days. No procedures are in place to request either at DOD or DA for any of the CAA exemptions.

Statute: Coastal Zone Management Act (CZMA)

Citation: 16 USC 1456(c)(1)(B)

National Security exemptions: Yes

Actor: President

Provision: The President may, on the request of the Secretary of Commerce, exempt Federal activities found inconsistent under the provisions of the CZMA by a Federal court, if the President determines the activities are in the paramount interest of the U.S. No procedure in place to request at either DOD or DA.

Table 15–3
Environmental laws and national security exemptions—Continued

Statute: ESA

Citation: 16 USC 1536(j)

National Security exemptions: Yes

Actor: SECDEF

Provision: The ESA Committee will grant an exemption to the provisions of the ESA for any DOD action upon the SECDEF finding the exemption is necessary for national security reasons. No procedure in place to request at DA.

Statute: FIFRA

Citation: 7 USC 136p

National Security exemptions: Yes

Actor: EPA administrator

Provision: Exempts Federal or state agencies from the requirements of subchapter II - Environmental Pesticide Control of FIFRA when EPA determines an emergency exists requiring such exemption. Not delegated lower by EPA. No procedures in place to request at either DOD or DA.

Statute: Federal Water Pollution Control Act (FWPCA)

Citation: 33 USC 1323(a)

National Security exemptions: Yes

Actor: President

Provision: The President may exempt any effluent source of any executive branch agency if determined to be in the paramount interest of the U.S. to do so, with the exception of sections 42 USC 1316 and 1317. A 1-year limit on the exception and a report to Congress is required. The President, if he or she determines it is in the paramount interest of the U.S., may issue regulations exempting property and weapons of the Armed Forces that are uniquely military in nature from the requirement that the Federal government comply with the FWPCA as if it were a nongovernmental entity. The President must review the need for the regulations every 3 years. There are no procedures in place to request at either DOD or DA. No regulations have been promulgated implementing this exception.

Statute: NHPA

Citation: 36 CFR 800.12

National Security exemptions: Yes

Actor: Agency

Provision: The agency official (agency head or designee for a specific undertaking) may comply with the provisions of 36 CFR 78 in lieu of 36 CFR 800 when facing a natural disaster or imminent threat to national security (36 CFR 78 provides for a waiver of compliance accompanied by a notice within 12 days of such waiver). If an emergency undertaking is an essential and immediate response to a disaster declared by the President or a governor and 36 CFR 800.12(a) does not apply, the state historic preservation officer and the Advisory Council on Historic Preservation must be notified and provided 7 days to comment if circumstances permit.

Statute: Noise Control Act

Citation: 42 USC 4903(b)

National Security exemptions: Yes

Actor: President

Provision: The President may exempt any single activity or facility, including noise emission sources or classes thereof, of any executive department agency from compliance with any noise control requirements if the President determines it to be in the paramount interest of the U.S. to do so. No procedure is in place to request either at DOD or DA.

Statute: OPA

Citation: 33 USC 2703

National Security exemptions: Yes

Actor: N/A

Provision: Act of war is one of three complete defenses to violations of the OPA and comes into play only if damages are sought under OPA.

Statute: RCRA (which includes the Federal Facilities Compliance Act of 1992)

Citation: 42 USC 6961

National Security exemptions: Yes

Actor: President

Provision: The President may exempt from compliance with requirements imposed under this act (substantive and procedural) executive department solid waste management facilities when in the paramount interest of the U.S. The exemption is limited in duration to 1 year and must be reported to Congress.

Statute: RCRA UST

Citation: 42 USC 6991f(b)

National Security exemptions: Yes

Actor: President

Provision: The President may exempt any executive branch agency's USTs from compliance with any requirement imposed under this

Table 15-3
Environmental laws and national security exemptions—Continued

section if the President determines it to be in the paramount interest of the U.S. to do so. The exemption must not exceed 1 year and must be reported to Congress. No procedures are in place at DOD or DA to request either of the RCRA exemptions.

Statute: TSCA

Citation: 15 USC 2601

National Security exemptions: Yes

Actor: President

Provision: The EPA administrator must waive compliance with any provision of TSCA upon a request and determination by the President that the requested waiver is necessary in the interest of national defense. No procedure is in place to request at either DOD or DA.

Appendix A References

Section I Required Publications

AR 200–1

Environmental Protection and Enhancement. (Cited in paras 1-1, 1-4, 2-1, 2-3, 3-1, 3-3, 4-1, 4-5, 4-8, 5-1, 5-2, 5-3, 5-4, 5-9, 6-1, 6-2, 7-1, 7-2, 9-1, 10-1, 10-2, 11-1, 11-12, 11-14, 12-1, 13-1, 13-3, 13-5, 15-1, 15-5, 15-6, 15-9, 15-13, 15-17, and 15-18.)

Section II Related Publications

A related publication is merely a source of additional information. The user does not have to read it to understand this publication. Note: Except as noted below, Army regulations are available online from the USAPA Web site (www.usapa.army.mil) and at <http://www.usace.army.mil/usace-docs>. Other Web sites where publications may be obtained are listed as follows: Code of Federal Regulations (CFRs) and Public Laws (PLs), <http://www.epa.gov> or <http://www.access.gpo.gov/nara/>; Executive Orders (EOs), <http://www.whitehouse.gov>; EPA documents, <http://www.epa.gov>; Engineering Regulations (ERs), <http://www.usace.army.mil/usace-docs> or <http://www.hnd.usace.army.mil/techinfo>; Federal Registers (FRs), http://www.access.gpo.gov/su_docs/aces/aces_140.html; Final Governing Standards (FGSs), <http://www.denix.osd.mil> (select public menu, subject areas, international under final governing standards); Public Works Technical Bulletins, <http://www.hnd.usace.army.mil/techinfo/>; Technical Bulletins, <http://www.logsa.army.mil>; Technical Bulletins–Medical, <http://chppm-www.apgea.army.mil/>; Technical Manuals, <http://www.usace.army.mil/usace-docs>; TRADOC PAMs, <http://www-tradoc.army.mil>; the U.S. Codes, <http://www.epa.gov> or <http://www4.law.cornell.edu/uscode/>; and the U.S. Corps of Engineers Guidance Specifications (<http://www.usace.army.mil/usace-docs> or <http://www.hnd.usace.army.mil/techinfo>). MIL-STDs may be obtained from the Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120–5009. Copies of CFRs and Federal Registers may also be purchased from the Superintendent of Documents, Government Printing Office, Washington, DC 20402.

ANSI S12.4–1986

American National Standard Method for the Assessment of High-Energy Impulsive Sound with Respect to Residential Communities (<http://www.ansi.org>)

ANSI S12.40–1990

American National Standard Sound Level Descriptors for Determination of Compatible Land Use (<http://www.ansi.org>)

AR 5–4

Department of the Army Productivity Improvement Program (DAMRIP)

AR 10–5

Organization and Functions, Headquarters, Department of the Army

AR 11–9

The Army Radiation Safety Program

AR 11–27

Army Energy Program

AR 25–55 (formerly AR 340–17)

The Department of the Army Freedom of Information Act Program

AR 25–400–2

The Modern Army Record Keeping System (MARKS)

AR 40–5

Preventive Medicine

AR 40–7

Use of Investigational Drugs and Devices in Humans and the Use of Schedule I Controlled Drug Substances

AR 40-13

Medical Support-Nuclear/Chemical Accidents and Incidents

AR 40-61

Medical Logistics Policies and Procedures

AR 50-5

Nuclear and Chemical Weapons and Material-Nuclear Surety

AR 50-6

Nuclear and Chemical Weapons and Materiel, Chemical Surety

AR 55-228

Transportation by Water of Explosives and Hazardous Cargo

AR 56-9

Watercraft

AR 58-1

Management, Acquisition, and Administrative Use of Motor Vehicles

AR 70-1

Army Acquisition Policy

AR 70-65

Management of Controlled Substances, Ethyl Alcohol, and Hazardous Biological Substances in Army Research, Development, Test, and Evaluation Facilities

AR 75-1

Malfunctions Involving Ammunition and Explosives

AR 75-14

Interservice Responsibilities for Explosive Ordnance Disposal

AR 75-15

Responsibilities and Procedures for Explosive Ordnance Disposal

AR 95-1

Flight Regulations

AR 135-200

Active Duty for Missions, Projects, and Training for Reserve Component Soldiers

AR 190-51

Security of Unclassified Army Property (Sensitive and Nonsensitive)

AR 200-2

Environmental Effects of Army Actions

AR 200-3

Natural Resources-Land, Forest, and Wildlife Management

AR 200-4

Cultural Resources Management

AR 200-5

Pest Management

AR 210-14

The Army Installation Status Report Program

AR 210–20

Master Planning for Army Installations

AR 210–70

Intergovernmental Coordination of DOD Federal Development Program and Activities

AR 350–1

Army Training

AR 350–4

Integrated Training Area Management (ITAM)

AR 360–1

The Army Public Affairs Program

AR 385–10

The Army Safety Program

AR 385–16

System Safety Engineering and Management

AR 385–40

Accident Reporting and Records

AR 385–64

U.S. Army Explosives Safety Program

AR 385–61

The Army Chemical Agent Safety Program

AR 50–7

Army Reactor Program

AR 405–10

Acquisition of Real Property and Interests Therein

AR 405–80

Management of Title and Granting Use of Real Property

AR 405–90

Disposal of Real Estate

AR 415–15

Army Military Construction Program Development and Execution

AR 420–10

Management of Installation Directorates of Public Works

AR 420–49

Utilities Services

AR 420–70

Buildings and Structures

AR 500–4

Military Assistance to Safety and Traffic (MAST)

AR 500–60

Disaster Relief

AR 690-950

Career Management

AR 700-68

Storage and Handling of Compressed Gases and Liquids in Cylinders, and of Cylinders

AR 700-136

Tactical Land Based Water Resources Management in Contingency Operations

AR 700-141

Hazardous Materials Information System (RCS DD-FM&P (A,Q,&AR) 1486)

AR 700-143

Performance Oriented Packaging of Hazardous Materials

AR 710-1

Centralized Inventory Management of the Army Supply System

AR 710-2

Inventory Management Supply Policy Below the Wholesale Level

AR 725-50

Requisitioning, Receipt, and Issue System

AR 740-32

Responsibilities for Technical Escort of Dangerous Materials

AR 750-1

Army Materiel Maintenance Policy and Retail Maintenance Operations

Army Pollution Prevention Plan Manual: A Guide for Army Installations, 11 May 1993

Obtain from the Army Environmental Policy Institute, Atlanta, Georgia (<http://www.aepi.army.mil>).

CEGS-02080

U.S. Corps of Engineers Guidance Specification, for Military Construction

CEGS-02081

U.S. Corps of Engineers Guidance Specification, Localized Repair and Maintenance Work Involving Asbestos-Containing Material

CEGS-02082

U.S. Corps of Engineers Guidance Specification, Independent Air Monitoring and Analysis during Abatement Procedures of Asbestos-Containing Material

CEGS-02083

U.S. Corps of Engineers Guidance Specification, Removal, and Disposal of Asbestos-Containing Materials Prior to Demolition

CEGS-13281

Lead Hazard Control Activities

10 CFR 20

Nuclear Regulatory Commission Standards for Protection Against Radiation

10 CFR 30

Rules of General Applicability of Domestic Licensing of Byproduct Material

10 CFR 40

Domestic Licensing of Source Material

10 CFR 61

Licensing Requirements for Land Disposal of Radioactive Wastes

10 CFR 62

Criteria and Procedures for Emergency Access to Non-Federal and Regional Low-Level Waste Disposal Facilities

10 CFR 70

Domestic Licensing of Special Nuclear Material

24 CFR 51

Department of Housing and Urban Development Environmental Criteria and Standards

29 CFR 1910

Occupational Safety and Health Standards

29 CFR 1910.120

OSHA Hazardous Waste Operations

29 CFR 1910.1200

OSHA Regulation on Hazard Communication (Worker Right-to-Know)

32 CFR 60

National Register of Historic Places

32 CFR 229

Archeological Resources Protection Act of 1979: Final Uniform Regulations

33 CFR 153–157

Coast Guard Regulations on Oil Spills (includes Pollution Control, Oil Transfer Facilities, Vessel Design, Oil Transfer Operations, and Vessels Carrying Oil in Domestic Trade)

33 CFR 209

Army Corps of Engineers Regulations on Navigable Waters

33 CFR 320–330

Clean Water Act Nationwide Permit Programs

36 CFR 79

Curation of Federally-Owned and Administered Archaeological Collections

36 CFR 800.12

National Historic Preservation Act Regulations

40 CFR, subchapter C

U.S. Environmental Protection Agency Air Programs

40 CFR 51

Requirements for Preparation, Adoption, and Submittal of Implementation Plans, Appendix S-Emission Offset Interpretative Ruling

40 CFR 52.21

Regulations on Prevention of Significant Deterioration of Air Quality

40 CFR 60

Standards of Performance for New Stationary Sources

40 CFR 61

National Emission Standards for Hazardous Air Pollutants

40 CFR 70

State Operating Permit Programs

40 CFR 81

Designation of Areas for Air Quality Planning Purposes

40 CFR 82

Protection of Stratospheric Ozone

40 CFR 93

Determining Conformity of Federal Actions to State or Federal Implementation Plans

40 CFR 109

Criteria for State, Local, and Regional Oil Removal Contingency Plans

40 CFR 110

Discharge of Oil

40 CFR 112

Oil Pollution Prevention

40 CFR 116

Designation of Hazardous Substances

40 CFR 117

Determination of Reportable Quantities for Hazardous Substances

40 CFR 122

EPA Administered Permit Programs: National Pollutant Discharge Elimination System

40 CFR 124

Procedures for Decisionmaking

40 CFR 129

Toxic Pollutant Effluent Standards

40 CFR 141

National Primary Drinking Water Regulations

40 CFR 143

National Secondary Drinking Water Regulations

40 CFR 165

Regulations for the Acceptance of Certain Pesticides and Recommended Procedures for the Disposal and Storage of Pesticides and Pesticides Containers

40 CFR 170

Worker Protection Standard

40 CFR 171

Certification of Pesticide Applicators

40 CFR 202

Motor Carriers Engaged in Interstate Commerce

40 CFR 204

Noise Emission Standards for Construction Equipment

40 CFR 205

Transportation Equipment Noise Emission Controls

40 CFR 225

Corps of Engineers Dredged Material Permits

40 CFR 230 through 233

Wetland Permits

40 CFR 240 and 241

Guidelines for the Thermal Processing of Solid Wastes and for the Land Disposal of Solid Wastes

40 CFR 243

Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste

40 CFR 245

Guidelines for Resource Recovery Facilities

40 CFR 246

Source Separation for Materials Recovery Guidelines

40 CFR 257

Criteria for Classification of Solid Waste Disposal Facilities and Practices

40 CFR 258

Criteria for Municipal Solid Waste Landfills

40 CFR 260

Hazardous Waste Management System: General

40 CFR 261

Identification and Listing of Hazardous Waste

40 CFR 262

Standards Applicable to Generators of Hazardous Waste

40 CFR 264 and 265

Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

40 CFR 268

Land Disposal Restrictions

40 CFR 280

Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks

40 CFR 300

National Oil and Hazardous Substances Pollution Contingency Plan

40 CFR 302

Designation, Reportable Quantities, and Notification

40 CFR 355

Emergency Planning and Notification

40 CFR 370

Hazardous Chemical Reporting: Community Right-to-Know

40 CFR 372

Toxic Chemical Release Reporting: Community Right-to-Know

40 CFR 373

Reporting Hazardous Substance Activity When Selling or Transferring Federal Real Property

40 CFR 400

Clean Water Act

40 CFR 503

Standards for the Use or Disposal of Sewage Sludge

40 CFR 700

General: Toxic Substances Control Act

40 CFR 745

Lead-Based Paint Poisoning Prevention in Certain Residential Structures

40 CFR 761

Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions

40 CFR 763

Asbestos

40 CFR 1500

Council on Environmental Quality, Purpose, Policy, and Mandate

40 CFR 1506

Other Requirements of NEPA

48 CFR 6

Federal Acquisition Regulations System Competition Requirements

49 CFR 171

Hazardous Materials Regulation: General Information, Regulations, and Definitions

49 CFR 172

Hazardous Materials Tables and Hazardous Materials Communications Regulations

49 CFR 173

Shippers General Requirements for Shipment and Packaging

49 CFR 174

Carriage by Rail

49 CFR 175

Carriage by Aircraft

49 CFR 176

Carriage by Vessel

49 CFR 177

Carriage by Public Highway

49 CFR 178

Shipping Container Specifications

Committee on Hearing, Bioacoustics, and Biomechanics (WG84)

Assessment of Community Response to High Energy Impulse Sounds, National Research Council, 1981 (<http://www.nas.edu>.)

DA PAM 40-8

Occupational Health Guidelines for the Evaluation and Control of Occupational Exposure to Nerve Agents GA, GB, GD, and VX

DA PAM 40–501

Hearing Conservation Program

DA PAM 50–6

Chemical Accident or Incident Response and Assistance (CAIRA) Operations

DA PAM 70–3

Army Acquisition Procedures

DA PAM 200–4

Cultural Resources Management

DA PAM 385–64

Ammunition and Explosives Safety Standards

DA PAM 710–2–1

Using Unit Supply System (Manual Procedures)

DA PAM 710–2–2

Supply Support Activity Supply System: Manual Procedures

DERP–FUDS Program Manual

(<http://www.dtic.mil/envirodod>)

DFAS–IN Regulation 37

Finance and Accounting Policy Implementation (<http://www.asafm.army.mil>)

Doctrinal White Paper

Integrating U.S. Army Environmental Strategy into Operational Doctrine, TRADOC, May 1996 (<http://www-tradoc.army.mil>)

DOD 4140.27–M

Shelf Life Management Manual (<http://web7.whs.osd.mil/dodiss/publications/pub2.htm>)

DOD 4150.7–M

DOD Pest Management Training and Certification (<http://web7.whs.osd.mil/dodiss/publications/pub2.htm>)

DOD 4150.7–P

DOD Plan for the Certification of Pesticide Applicators (<http://web7.whs.osd.mil/dodiss/publications/pub2.htm>)

DOD 4160.21–M

Defense Reutilization and Marketing Manual (<http://web7.whs.osd.mil/dodiss/publications/pub2.htm>)

DOD 4500.9–R

Defense Transportation Regulation, Part II Cargo Movement (<http://web7.whs.osd.mil/dodiss/publications/pub2.htm>)

DOD 5000.1

Defense Acquisition (<http://web7.whs.osd.mil/corres.htm>)

DOD 5000.2–R

Mandatory Procedures for Major Defense Acquisition and Major Automated Information Systems (<http://web7.whs.osd.mil/corres.htm>)

DOD 6055.9–STD

DOD Ammunition and Explosives Safety Standards (<http://web7.whs.osd.mil/dodiss/publications/pub2.htm>)

DOD

Base Realignment and Closure (BRAC) Cleanup Plan Guidebook, Appendix C (<http://www.dtic.mil/envirodod/brac>)

DOD

BCP Guide Book, 1996 (<http://www.dtic.mil/envirodod/brac>)

DOD

Defense Environmental Restoration Program (DERP) Management Guidance (<http://www.dtic.mil/envirodod>)

DOD

Defense FAR Supplement, parts 252.223-7002 (a)(1) and (2)(i)(iii)(v)(vi), "Material Safety Data Sheets: Hazard Materials Identification and Material Safety Data" (<http://www.asafm.army.mil>)

DOD

Tools Catalog (<http://www.hnd.usace.army.mil/earc>)

DOD

DERP-Formerly Used Defense Sites (FUDS) Charter (<http://www.dtic.mil/envirodod>)

DOD

Installation Restoration Guidance and Procedures Manual (<http://www.dtic.mil/envirodod>)

DOD

Military Munitions Rule Implementation Guidance, 1 July 1998 (<http://www.denix.osd.mil>)

DOD

Relative Risk Site Evaluation Primer, Summer 1997 (<http://www.dtic.mil/envirodod>)

DOD

Revised Implementation Guidance for EO 12856, 13 April 1995 (<http://www.denix.osd.mil>, select public menu, DUSD(ES) Programs, Pollution Prevention)

DODI 4150.7

DOD Pest Management Program (<http://web7.whs.osd.mil/dodiss/instructions/ins2.html>)

DODI 4715.4

Pollution Prevention (<http://web7.whs.osd.mil/dodiss/instructions/ins2.html>)

DODI 4715.5

Management of Environmental Compliance at Overseas Installations (<http://web7.whs.osd.mil/dodiss/instructions/ins2.html>)

DODI 4715.6

Environmental Compliance (<http://web7.whs.osd.mil/dodiss/instructions/ins2.html>)

DODI 4715.8

Environmental Remediation for DOD Activities Overseas (<http://web7.whs.osd.mil/dodiss/instructions/ins2.html>)

DODI 6050.5

DOD Hazard Communication Program (<http://web7.whs.osd.mil/dodiss/instructions/ins2.html>)

DODI 6055.1

DOD Occupational Safety and Health (SOH) Program (<http://web7.whs.osd.mil/dodiss/instructions/ins2.html>)

EC 11-2-172

Annual Program Budget Request of Civil Works Activities (<http://www.usace.army.mil/usace-docs>)

EO 11514

Protection and Enhancement of Environmental Quality

EO 11988

Floodplain Management

EO 12088

Federal Compliance with Pollution Control Standards

EO 12114

Environmental Effects Abroad of Major Federal Actions

EO 12580

Superfund Implementation

EO 12843

Procurement Requirements and Policies for Federal Agencies for Ozone Depleting Substances

EO 12844

Federal Use of Alternatively Fuel Vehicles

EO 12856

Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements

EO 12902

Energy Efficiency and Water Conservation at Federal Facilities

EO 13007

Indian Sacred Sites

EO 13031

Federal Alternative Fueled Vehicle Leadership

EO 13101

Greening the Government through Waste Prevention, Recycling, and Federal Acquisition

EP 200-2-3

Environmental Compliance Guidance and Procedures (<http://www.usace.army.mil/usace-docs>)

EPA

EPA Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program, 58 FR 31114, 28 May 1993

EPA

Federal Facility Pollution Prevention Guide, December 1994

EPA

Pollution Prevention in the Federal Government: Guide for Developing Pollution Prevention Strategies for Executive Order 12856 and Beyond, April 1994

EPA

Toxic Chemical Release Inventory Reporting Form R and Instructions, Revised 1999 Version, February 2000

EPA Document No. EPA-86-004

A Citizen's Guide to Radon-What It Is and What To Do About It

EPA Document No. EPA-87-009

Radon Reduction-An Interim Guide

EPA Document No. EPA-87-010

Radon Reduction Methods-A Homeowner's Guide

EPA Document No. EPA/340/1-90-018

Asbestos/NESHAP Regulated Asbestos Containing Materials Guidance

EPA Document No. EPA/402-K-92-001

A Citizen's Guide to Radon

EPA Document No. EPA/402-K-92-003

Consumer's Guide to Radon

EPA Document No. EPA/402-K-93-008

A Physician's Guide to Radon

EPA Document No. EPA/402-R-93-003

Home Buyer's and Seller's Guide to Radon

EPA Document No. EPA/402-R-93-078

Radon Mitigation Standards, Revised, April 1994

EPA Document No. EPA/402-R-94-009

Model Standards and Techniques for Control of Radon in New Residential Buildings

EPA Document No. EPA/520/1-87-20

Radon Reference Manual

EPA Document No. EPA/520/1-89-027

Reducing Radon Risks

EPA Document No. EPA/530-R-95-023

Decision-Maker's Guide to Solid Waste Management, Volume II

EPA Document No. EPA 530-R-96-007

Resource Conservation and Recovery Act (RCRA) Public Involvement Manual

EPA Document No. EPA/550/9-74-004

Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety

EPA Document No. EPA/560/OPTS-86-001

A Guide to Respiratory Protection for the Asbestos Abatement Industry

EPA Document No. EPA/560/5-85-018

Asbestos in Buildings-Guidance for Service and Maintenance Personnel

EPA Document No. EPA/560/5-85-024

Guidance for Controlling Asbestos-Containing Materials in Buildings

EPA Document No. EPA/600/4-85-049

Measuring Airborne Asbestos Following an Abatement Action

EPA Document No. EPA/600/9-79-045

NPDES Best Management Practices Guidance Document

EPA Document No. EPA/625/5-87/019

Radon Reduction Techniques for Detached Houses-Technical Guidance, 2nd edition, revised January 1988

ER 200-2-2

Procedures for Implementing NEPA

ER 200-2-3

Environmental Compliance Policies

ER 1130-2-540

Environmental Stewardship Operations and Maintenance Policies

Federal Interagency Committee on Aviation Noise Annual Report, 1997

(<http://www.fican.org>)

Federal Interagency Committee on Noise Reports, Federal Agency Review of Selected Airport Noise Analysis Issues, 1992

(<http://www.fican.org>)

Field Manual 21-10

Field Hygiene and Sanitation (<http://www.adtdl.army.mil>)

FGS for Belgium

FGS for Belgium, March 1996, USAREUR

FGS for Germany

FGS for Germany, March 1996, USAREUR

FGS for Japan

FGS for Japan, January 1992, USFJ

FGS for Netherlands

FGS for Netherlands, March 1996, USAREUR

FGS for Panama

FGS for Panama, August 1993, USARSO

58 FR 31114

Waste Minimization Program, 28 May 1993

60 FR 21386

Recovered Materials Advisory Notice and Comprehensive Guideline for the Procurement of Products Containing Recovered Materials, 1 May 1995

61 FR 28642

The National Response Team's Integrated Contingency Plan Guidance, 5 June 1996

62 FR 219

Recovered Materials Advisory Notice II and Comprehensive Guideline for the Procurement of Products Containing Recovered Materials, 13 November 1997

63 FR 165

Recovered Materials Advisory Notice III and Comprehensive Guideline for the Procurement of Products Containing Recovered Materials; Proposed Rule, 26 August 1998

Guide to Preparing Ozone-Depleting Chemical Elimination Plans for Installations, 14 January 1999

Obtain from the Army Acquisition Pollution Prevention Support Office (<http://www.aappso.com>).

IEC Publication 804

Integrating-Averaging Sound Level Meters. (This publication may be obtained from the American National Standard Institute, 1430 Broadway, New York City, NY 10018.)

Installation Restoration Program Guidance Manual

(<http://www.denix.osd.mil>, select public menu, component policy)

Integrated Training Area Management (ITAM) Program Strategy, 17 August 1995

Obtain from the HQDA Office of the Deputy Chief of Staff for Operations and Plans, Training Simulations Division (DAMO-TRS), Washington, D.C., 20310-0400 (<http://www.army-itam.com>).

Joint Chief Staff Publication 4-04

Obtain from the Joint Doctrine for Civil Engineering Support (<http://www.dtic.mil/doctrine>, select Joint Electronic Library).

MIL-STD 129

Marking for Shipment and Storage, 15 June 1993

MIL-STD 313B

MSDS, Preparation and Submission of

MIL-STD 1474(B)(MI)

Noise Limits for Army Material

Mission Area Pollution Prevention Guide, 10 December 1993

Obtain from the Army Environmental Policy Institute, Atlanta, Georgia (<http://www.aepi.army.mil>).

OMB Circular A-95

Evaluation, Review, and Coordination of Federal and Federally Assisted Programs and Projects. (This publication may be obtained from the Office of Management and Budget, Office of Economic Policy, Room 2200, 725 17th Street, N.W., Washington, DC 20503-0001.)

Overseas Environmental Baseline Guidance Document

(<http://www.denix.osd.mil>, select public menu, library, international)

Policy and Guidance for Identifying U.S. Army Environmental Program Requirements and subsequent amendments

Obtain from the Army Headquarters (DAIM-ED) (<http://www.aec.army.mil>).

PL 88-206

Clean Air Act of 1977

PL 91-190

National Environmental Policy Act

PL 92-574

Noise Control Act of 1972

PL 92-609

The Quiet Communities Act of 1978

PL 95-217

Clean Water Act (CWA) of 1977

PL 99-240

Low Level Radioactive Waste Policy Act of 1980 as amended by the Low Level Radioactive Waste Policy Amendments of 1985 (U.S.C. 2021d)

PL 99-499

Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA)

PL 100-526

Base Realignment and Closure Act (BRAC) of 1988

PL 100-572

Lead Contamination Control Act (LCCA) of 1988

PL 101-510

Defense Base and Realignment Closure Act of 1990

PL 101-549

Clean Air Act Amendments of 1990

PL 101-637

Asbestos School Hazard Abatement Reauthorization Act

PL 102-426

Community Environmental Response Facilitation Act (CERFA)

PL 102-484

National Defense Authorization Act

PL 102-486

Energy Policy Act of 1992

PL 102-550

Residential Lead-based Paint Hazard Reduction Act of 1992

PWTB 420-46-08

Biosolids Management

PWTB 420-47-03

Integrated Solid Waste Management

PWTB 420-47-04

Solid Waste Operations

PWTB 420-47-05

Source Reduction Planning

PWTB 420-47-06

Waste Reduction for Food Service Personnel at Army Installations

PWTB 420-47-07

Office Waste Reduction Methods at Army Installations

PWTB 420-49-07

Solid Waste Options

PWTB 420-70-2

Installation Lead Hazard Management

PWTB 420-70-8

Installation Asbestos Program Management

TB 43-0244

Unit Level Procedures for Handling Service Supplies, Hazardous Material, and Waste

TB 420-47-04

Solid Waste Options

TB MED 525

Control of Hazards to Health from Ionizing Radiation Used by the Army Medical Department

TB MED 575

Swimming Pools and Bathing Facilities

TB MED 576

Sanitary Control and Surveillance of Water Supplies at Fixed Installations

TB MED 577

Sanitary Control and Surveillance of Field Water Supplies

TI 810-9I

Indoor Radon Prevention and Mitigation (<http://www.usace.army.mil/usace-docs>)

TM 3-261

Handling and Disposal of Unwanted Radioactive Material

TM 5-634

Solid Waste Management

TM 5-660

Maintenance and Operation of Water Supply Treatment and Distribution Systems

TM 5-662

Swimming Pools Operation and Maintenance

TM 5-665

Operation and Maintenance of Domestic and Industrial Wastewater Systems

TM 5-803-2

Planning in the Noise Environment

TM 5-813 Series

Water Supply, Source, Treatment and Distribution

TM 5-814 Series

Domestic Water Collection and Treatment

TM 9-1300-206

Ammunition and Explosive Standards

TM 38-250

Preparation of HM for Military Air Shipments

TM 38-410

Storage and Handling of HMs

TM 55-315

Transportation Guidance for Safe Transport of Radioactive Materials

TRADOC PAM 25-33

Army Training Glossary

TRADOC PAM 351-13

Systems Approach to Training-Analysis

TRADOC Reg 350-7

Systems Approach to Training

TRADOC Reg 351-1

Training Requirements Analysis System

USACERL IR N-10

User Manual: Interim Procedure for Planning Rotary Wing Aircraft Traffic Patterns and Siting Noise Sensitive Land Uses (USACER [USACERL]). (Available under AD No. A031450 from Technical Information Service (NTIS), Springfield, VA 22151.)

USACERL IR N-61

Predicting the Noise Impact in the Vicinity of Small-Arms ranges, Construction Engineering Research Laboratory (USACERL, October 1978). (Available under AD No. A062718 from NTIS, Springfield, VA 22151.)

USACERL TR-E-17

Predicting Community Response to Blast Noise (USACERL, December 1973). (Available under AD No. 773690 from NTIS, Springfield, VA 22151.)

USACERL TR-N-30

Environmental Noise Impact Analysis for Army Military Activities: User Manual (USACERL, November 1977). (Available under AD No. A047969, NTIS, Springfield, VA 22151.)

USACERL TR-N-60

Acoustic Directive Patterns for Army Weapons: Supplement 2 (USACERL, 1984). (Available under AD No. ADA 145643, NTIS, Springfield, VA 22151.)

USACERL TR-N-82

Compilation of Operational Blast Noise Data (USACERL, January 1980). (Available under AD No. A080429 from NTIS, Springfield, VA 22151.)

USACERL TR-N-184

Rotary-Wing Aircraft Noise Measurements: Analysis of Variations and Proposed Measurement Standard (USACERL, 1984). (Available under AD No. A 146207 from NTIS, Springfield, VA 22151.)

USACHPPM

Environmental Noise Management, An Orientation Handbook for Army Facilities (<http://chppm-www.apgea.army.mil/enp>)

USACHPPM

Interim Final Report, Lead-Based Paint Contaminated Debris Characterization Study #37-26JK4492. (This publication may be obtained from Commander, USACHPPM, 5158 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5403.)

USACHPPM

Air Pollution Emission Inventory Protocol for Army Installations and Activities, 19 May 1993 (<http://chppm-www.apgea.army.mil/air>)

USACHPPM

Technical Compliance Guidance for Clean Air Act Section 112(r), Risk Management Plan Program, March 1997 (<http://chppm-www.apgea.army.mil/air>)

USACHPPM

Title V Permit Assistance Guide for Army Installations, July 1994 (<http://chppm-www.apgea.army.mil/air>)

USACHPPM

Water Quality Information Paper No. 12, Preparation of SPCCPs (<http://chppm-www.apgea.army.mil/dwater>)

USACHPPM

Water Quality Information Paper #32-024, Disposal Options and Procedures for Wastes Generated by Reverse Osmosis Water Purification Units (ROWPUS), October 1994 (<http://chppm-www.apgea.army.mil/dwater>)

USACHPPM TG-179

Guidance for Providing Safe Drinking Water at Army Installations (<http://chppm-www.apgea.army.mil/dwater>)

USACHPPM TG-190

Managing Occupational Exposure to Bloodborne Pathogens. (This publication may be obtained from Commander, USACHPPM, 5158 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5403.)

USACHPPM TG-197

Developing an Integrated Solid Waste Management Plan, A Guide for Army Installations. (This publication may be obtained from Commander, USACHPPM, 5158 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5403.)

USAEC

Model Pollution Prevention Plan, February 1995 (<http://www.aec.army.mil>)

USAEC

Regulatory Guidance for Fuel Tanker Trucks at Army Facilities, October 2000 (<http://www.aec.army.mil>)

USAES

Training Circular (TC) 5-400, Unit Leader's Guide to Environmental Stewardship. (This publication may be obtained from the Commandant, U.S. Army Engineer School, ATTN: ATSE-T-TIL, Ft. Leonard Wood, MO 65473-5000.)

USAES

TVT 5-129, Unit Environmental Sustainment Training. (This publication may be obtained from the Commandant, U.S. Army Engineer School, ATTN: ATSE-T-TIL, Ft. Leonard Wood, MO 65473-5000.)

3 USC, 10 USC, 18 USC, and 30 USC (scattered sections)

Military Construction Authorization Act FY 1975

7 USC 136

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

10 USC 160

Notice of Environmental Restoration Activities

10 USC 2692

Storage and Disposal of Non-Defense Toxic and Hazardous Materials

10 USC 2701–2708

Environmental Restoration

15 USC 2601

Toxic Substances Control Act

15 USC 2615

Toxic Substances Control Act

15 USC 2621

Toxic Substances Control Act

15 USC 2661

Indoor Radon Abatement

15 USC 2681–2692

Control of Toxic Substances

16 USC 470 aa–11

Archeological Resources Protection Act of 1979

16 USC 1401 et seq.

Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972, as amended (Ocean Dumping)

16 USC 1456(c)(1)(B)

Coastal Zone Management Act

16 USC 1536(j)

Endangered Species Act

16 USC 1540

Endangered Species Act

31 USC 1341

Anti-Deficiency Act

33 USC 401

Rivers and Harbors Act of 1889

33 USC 1319

Navigable Waters Pollution of Sea by Oil

33 USC 1323

Federal Water Pollution Control Act

33 USC 1401

Marine Protection, Research, and Sanctuaries Act (MPRSA)

33 USC 2703

Oil Pollution Act

33 USC 2761

Oil Pollution Act of 1990

40 USC 484

Federal Property and Administrative Services Act of 1949

42 USC 300

Safe Drinking Water Act

42 USC 1441

Clean Water Act

42 USC 2011 et seq.

Atomic Energy Act

42 USC 4821–4856

Lead Paint Poisoning Prevention Act of 1976

42 USC 4903

Noise Control Act

42 USC 6901–6922

Solid Waste Disposal Act (RCRA)

42 USC 6928

RCRA, Federal Enforcement

42 USC 6961

Resource Conservation and Recovery Act, which includes the Federal Facilities Compliance Act of 1992

42 USC 6991

Regulation of Underground Storage Tanks

42 USC 7418, 7588, 7606, 7671

Clean Air Act

42 USC 9601 et seq.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA, Superfund)

42 USC 9603

CERCLA: Notification Requirements Respecting Released Substances

42 USC 9613

CERCLA, Civil Proceedings

42 USC 9617

CERCLA, Community Relations and Public Participation

42 USC 9620

CERCLA, Application to Federal Facilities

49 USC (scattered sections)

Aviation Safety and Noise Abatement Act of 1979

49 USC 5101–5127

Hazardous Material Transportation Act

50 USC 1511–1521

Chemical and Biological Warfare Program

USFK Pam 200–1 Environmental Governing Standards, 15 Jul. 97

(www.denix.osd.mil (select public menu, subject areas, international, under final governing standards.))

Section III

Prescribed Forms

This section contains no entries.

Section IV

Referenced Forms

The following forms are available from the OSD Web site (<http://web1.whs.osd.mil/icdhome/icdhome.htm>):

DD Form 1391

Military Construction Project Data

DD Form 1556

Request, Authorization, Agreement, Certification of Training and Reimbursement

Appendix B

Points of Contact

B–1. Introduction

This appendix lists addresses and Web sites for points of contact and automated environmental systems.

B–2. Informational Addresses and Web sites

a. U.S. Army Office of the Director of Environmental Programs (ODEP), ATTN: DAIM-ED, 600 Army Pentagon, Washington, DC 20310-0600 (<http://www.hqda.army.mil/acsimweb/env/>).

(1) ODEP, Compliance–ATTN: DAIM-ED-C.

(2) ODEP, Conservation–ATTN: DAIM-ED-N.

(3) ODEP, Foundation–ATTN: DAIM-ED-F.

(4) ODEP, Munitions–ATTN: DAIM-ED-M.

(5) ODEP, P2–ATTN: DAIM-ED-P.

(6) ODEP, Restoration–ATTN: DAIM-ED-R.

b. ACSIM Facilities and Housing Directorate, Facilities Policy Division, ATTN: DAIM-FDF-E, 7701 Telegraph Road, Alexandria, VA 22315-3800 (<http://www.hqda.army.mil/acsimweb/fd/policy/default.htm>).

c. U.S. Army Base Realignment and Closure Office, ATTN: DAIM-BO, 600 Army Pentagon, Washington, DC 20310-0600 (<http://www.hqda.army.mil/acsimweb/brac/braco.htm>).

d. U.S. Army Environmental Center (USAEC), ATTN: SFIM-AEC-CO, 5179 Hoadley Road, Aberdeen Proving Ground, MD 21010-5401 (<http://www.aec.army.mil>).

(1) USAEC, Compliance - ATTN: SFIM-AEC-NR.

(2) USAEC, Conservation - ATTN: SFIM-AEC-EQN.

(3) USAEC, Environmental Quality - ATTN: SFIM-AEC-EQ, BLDG E4435.

(4) USAEC, P2 - ATTN: SFIM-AEC-ET.

(5) USAEC, Restoration - ATTN: SFIM-AEC-ER, BLDG E4480.

(6) USAEC, Special Programs-ATTN: SFIM-AEC-EQS.

- e. U.S. Army Corps of Engineers, Environmental Division, ATTN: CEMP-R, HQ USACE, 441 G Street, NW, Washington, DC 20314-1000 (<http://www.usace.army.mil/>).
- f. U.S. Army Corps of Engineers Installation Support Center, CEISC (formerly USCPW), 7701 Telegraph Road, Alexandria, VA 22315-3862 (<http://www.usacpw.belvoir.army.mil/>).
- g. U.S. Army Corps of Engineers, Hazardous, Toxic, and Radioactive Waste (HTRW) Center of Expertise, CEN-WO-HX, 12565 W. Center Rd., Omaha, NE 68144 (<http://www.nwo.usace.army.mil/>).
- h. U.S. Army Corps of Engineers, Engineering and Construction Division, ATTN: CECW-E, 441 G Street, NW, Washington, DC 20314-1000 (<http://www.hq.usace.army.mil/cemp/e/cemp-e.htm>).
- i. U.S. Army Center for Health Promotion & Preventive Medicine (USACHPPM), 5158 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5403 (<http://chppm-www.apgea.army.mil/>).
- (1) Air Program–ATTN: MCHB-TS-EA.
- (2) Environmental Noise–ATTN: MCHB-TS-EEN.
- (3) Ground Water and Solid Waste–ATTN: MCHB-TS-EGW.
- (4) Hazardous and Medical Waste–ATTN: MCHB-TS-EHM.
- (5) Industrial and Environmental Health Physics–ATTN: MCHB-TS-OIP.
- (6) Industrial Hygiene–ATTN: MCHB-TS-OIM.
- (7) Military Item Disposal Instruction (MIDI)–ATTN: MCHB-TS-EHM.
- (8) Surface Water and Wastewater–ATTN: MCHB-TS-ESW.
- (9) Water Supply Management–ATTN: MCHB-TS-EWS.
- j. U.S. Army Materiel Command Installations and Services Activity (USAMC-ISA), Environmental Division, ATTN: AMXIS-U, 1 Rock Island Arsenal, Rock Island, IL 61299-7190 (<http://ri-app-nt2.ria.army.mil/isa/>).
- k. U.S. Army Environmental Awareness Resource Center, ATTN: CEHR-P-ET, P.O. Box 1600, Huntsville, AL 35807-4301 (<http://www.hnd.usace.army.mil/earc/>).
- l. U. S. Army Operations Support Command, Radioactive Waste Disposal Division, ATTN: AMSOS-SF, 1 Rock Island Arsenal, Rock Island, IL 61299- 6000 (<http://www.ioc.army.mil/dm/dmwwweb/introold.htm>).
- m. U.S. Army Materiel Command (USAMC), Environmental Quality Division, ATTN: AMCIS-A, 5001 Eisenhower Avenue, Alexandria, VA 22333-0001 (<http://www.amc.army.mil/amc/eng/a/>).
- n. U.S. Army Acquisition Pollution Prevention Support Office (AAPPSO), Headquarters, U.S. Army Materiel Command, ATTN: AMCRDA-TE-E, 5001 Eisenhower Avenue, Room 8S40, Alexandria, VA 22333 (<http://www.aapppo.com>).
- o. U.S. Army Construction Engineering Research Laboratory (USACERL), P.O. Box 9005, Champaign, Illinois 61826-9005 (<http://www.cecer.army.mil/>).
- p. Tank Automotive Research, Development and Engineering Center, 6501 Eleven Mile Road, Warren, MI 48397-5000 (<http://www.tacom.army.mil/tardec/>).
- q. National Defense Center for Environmental Excellence (<http://www.ndcee.ctc.com/>).
- r. U.S. Army Research Laboratory (ARL), ATTN: AMSRL-CS-EA-PA, 2800 Powder Mill Rd, Adelphi, MD 20783-1197 (<http://www.arl.army.mil/>).
- s. Natick Soldier Center (NSC) (formerly the Natick Research Development and Engineering Center), Kansas Street, Natick, MA 01760 (<http://www.natick.army.mil/soldier/index.htm>).
- t. U.S. Army Soldier and Biological Chemical Command (formerly the U.S. Army Chemical and Biological Defense Command), Commander, 5183 Blackhawk Road Bldg. E5101, Aberdeen Proving Ground, MD 21010-5424 (<http://www.sbccom.army.mil/>).
- u. National Automotive Center, 6501 Eleven Mile Road, Warren, MI 48397-5000 (<http://www.tacom.army.mil/tardec/nac/>).
- v. U.S. Army Aviation and Missile Research, Development and Engineering Center, Redstone Arsenal, AL 35898 (<http://www.redstone.army.mil/amrdec/>).
- w. U.S. Army Research Office, P.O. Box 12211, Research Triangle Park, NC 27709 (<http://www.aro.ncren.net/>).
- x. Defense Environmental Network & Information Exchange (DENIX) (<http://www.denix.osd.mil/>).
- y. Hazardous Technical Information Services (HTIS), Defense Supply Center Richmond, DSCR-VBC/THIS, 8000 Jefferson Davis Highway, Richmond, VA 23297-5609 (<http://www.dscr.dla.mil/htis/htis.htm>).
- z. The Surgeon General, Directorate of Health Services, ATTN: DASG-HS, 600 Army Pentagon, Washington, DC 20310-0600.
- aa. Deputy Chief of Staff of Operations and Plans, ATTN: DAMO-NCC, 600 Army Pentagon, Washington, DC 20310-0600.

B–3. Assistance with Automated Environmental Management Systems

a. EPR.

- (1) Environmental Data Management Support Center (EDMSC), Potomac Research International, Inc., P.O. Box 14,

Aberdeen Proving Ground, Edgewood Area, MD 21010-5401 (software questions, requests for customized reports, and manual and software updates).

(2) ODEP: ATTN: DAIM-ED (policy and technical questions).

(3) USAEC, Special Programs–ATTN: SFIM-AEC-EQS (policy and technical questions and technical and functional assistance).

(4) U.S. Army Logistics Management College (ALMC) (<http://www.almc.army.mil/> (software training)).

b. EQR.

(1) USAEC, Special Programs–ATTN: SFIM-AEC-EQS (functional questions and training).

(2) Environmental Data Management Support Center (EDMSC) (technical assistance on creating customized reports, obtain users manuals and software requests, and how to submit data).

c. DENIX. Web site: <http://www.denix.osd.mil>.

d. DESERTS.

(1) USAEC, Restoration–ATTN: SFIM-AEC-ER, BLDG E-4480 (functional questions).

(2) USAEC, Restoration–ATTN: SFIM-AEC-RMI (technical questions).

e. ECAS.

(1) ECAS Team: USAEC, Special Programs–ATTN: SFIM-AEC-EQS (technical inquiries and information on field and data definitions and copies of software, manuals, and other assessment tools).

(2) U.S. Army Logistics Management College (ALMC) (<http://www.almc.army.mil/> (software training)).

f. ISR Environment.

(1) ODEP, Compliance–ATTN: DAIM-ED-C (policy and technical questions).

(2) USAEC, Special Programs–ATTN: SFIM-AEC-EQS (policy and technical questions).

(3) ISR Web site: <http://isr.xservices.com> (software, manuals, and standard documents).

(4) U.S. Army Logistics Management College (ALMC) (<http://www.almc.army.mil/> (software training)).

Appendix C

Hazardous Waste and Defense Reutilization and Marketing Service

C–1. Introduction

This appendix provides guidance on issue resolution, requests for waivers, and mandatory disposal standards.

C–2. Process to resolve issues between installations and DRMOs

a. Guidelines for installation-DRMO interactions. Putting effort into the prevention of problems is time well spent and will help ensure good DRMO performance. Earlier involvement of MACOMs, HQDA, DRMS zone managers, and headquarters DRMS personnel can also alleviate many problems. Installations should involve MACOMs as soon as problems surface and MACOMs will determine when HQDA and headquarters DRMS should become involved. Some ways to help ensure better service include the following:

(1) Establish and maintain regular communication with the DRMO. The more accurate the installation needs are identified and described (especially in the contract award phase), the better the service and the lower the disposal costs through DRMS will be. Good communication with the DRMO helps ensure that your HW management needs will be met.

(2) Include the DRMO in installation/activity environmental program meetings such as the EQCC. View the DRMO as a team member in your waste management program, not as an outsider.

(3) Know the DRMO's chain of command and use it to resolve your problems. The DRMO's chain of command is usually as follows:

(a) Environmental protection specialist.

(b) Environmental branch chief.

(c) DRMO chief.

(d) DRMS zone manager.

(e) Headquarters, DRMS.

(4) Understand your DRMO contract and the contracting process.

b. Dispute resolution process. When local communication fails to resolve HW issues, the installation needs another tool to quickly resolve these issues without unnecessary red tape. This tool, or dispute resolution process, should minimize conflict between the installation and the DRMO and ensure efficient removals of HW.

(1) If problems with the DRMO service or disposal contract arise, installations should first work with their DRMOs to resolve issues at the local level. Installations should not attempt to resolve problems directly with the DRMS HW disposal contractors. Instead, they should clearly state problems, in a written e-mail or formal memorandum, to the

DRMO staff (environmental protection specialist and/or the contracting officer representative (COR)). Make sure that the DRMO staff understands the installation needs and timelines.

(2) If the problem cannot be resolved through direct communication with the DRMO staff, the installation should elevate the problem to the DRMO chief, clearly stating the installation's need and documenting this communication in writing. The DRMO chief should be given an opportunity to resolve the problem with an agreed upon time frame. At this point, MACOM HW POCs should be advised that the installation is attempting to resolve issues with the local DRMO chief. If the problem has not been resolved in 7 days, HQDA should be informed by the MACOM.

(3) If the dispute is not resolved through involvement of the DRMO chief, within an agreed upon or reasonable time frame, the installation should document the problem in a written Request for Dispute Resolution (letter or e-mail). This should be forwarded to the DRMS Zone Manager with a copy to DRMS Environmental Services (DRMS-LH). (Addresses are listed in appendix C, para c(3)). The Request for Dispute Resolution should also indicate what actions have already been taken with the DRMO and suggest any further actions that should be taken to correct the problem. The installation should provide a copy of the Request for Dispute Resolution to the MACOM HW POC and discuss the issues with them.

(4) If the problem is not resolved through involvement of the zone managers and/or DRMS-LH staff, the installation should elevate the problem to their MACOM (again, by letter or e-mail) with a copy to DRMS-LH. MACOMs may propose solutions to the installation or may directly contact DRMS-LH to schedule a conference call with the involved parties. The Army Environmental Center (USAEC) and HQDA HW POCs should be informed and included in the conference call. Prior to a conference call, the MACOM should forward a list of issues to DRMS-LH so that they can include the personnel who are best able to make needed corrections (that is, the DRMS zone manager and/or appropriate experts within DRMS). The conference call should be conducted with an agenda, agreed upon rules of conduct, and a clear definition of the desired outcome so that all may be prepared to discuss the issues and develop solutions. The call should be concluded with clear statements of agreed upon actions, timelines, and agreements.

(5) If the dispute is not resolved through the above actions, the MACOM should forward the Request for Dispute Resolution to the HQDA HW POC. The correspondence should include the list of issues, information on actions taken to resolve the problem, names of the MACOM and installation POCs, and any critical dates. The HQDA HW POC will work with USAEC, the MACOM, the installation, DLA, and DRMS-LH to find an acceptable solution to the problem.

(6) Installations and MACOMs must use this process prior to requesting an exemption from the AR 200-1 requirement for use of DRMS for HW disposal.

c. Points of contact.

(1) *HQDA.* Headquarters, Department of the Army, Environmental Programs, ATTN: DAIM-ED-C, 600 Army Pentagon, Washington, DC 20310-0600.

(2) *USAEC.* U.S. Army Environmental Center, ATTN: SFIM-AEC-EQC, Building E4235, Aberdeen Proving Ground, Edgewood Area, MD 21010-5401.

(3) *Headquarters DRMS.*

(a) DRMS Environmental Business Unit, DRMS-LH, ATTN: DRMS-LH, 74 N. Washington, Battle Creek, MI 49017.

(b) Hazardous Waste Disposal Branch, DRMS-LHO, ATTN: DRMS-LHO, 74 N. Washington, Battle Creek, MI 49017.

(c) Policy and Technical Support, DRMS-LHP, ATTN: DRMS-LHP, 74 N. Washington, Battle Creek, MI 49017.

(4) *DRMS zone managers.* The DRMS Web site lists names, addresses, and phone numbers of DRMS zone managers and DRMO chiefs (<http://www.drms.dla.mil/drmo/site/drmo.html>).

C-3. Process for requests for waiver from the use of DRMS

a. The preceding dispute resolution process must be used if the request for waiver is based on difficulties between installations and local DRMOs.

b. Installations will provide a written request with justification to the MACOM. This will include written verification from Headquarters, DRMS, indicating that DRMS does not have the capacity to provide the service required, if applicable.

c. Installations must provide a written management plan to describe alternative service, which meets the contract criteria described in DOD 4160.21-M and below. Army liability must be minimized.

d. MACOMs will approve waivers and maintain oversight for use of non-DRMS HW providers. HQDA, DAIM-ED-C, will be provided copies of justification and alternative service provider documentation.

e. Headquarters, DRMS, may be contacted for assistance in verifying potential contractor permits, compliance history, and past performance history.

C-4. Mandatory HW disposal standards

Applicants for waiver from the use of DRMS for HW disposal must certify through the IC that they have the capability to meet the following criteria and the HW disposal contract standards listed in DOD 4160.21-M, chapter 10, attachment

2, as shown below. These criteria apply both to wastes that are normally handled by DRMS and to those waste categories that are normally excluded by DRMS.

- a.* Provide 100 percent manifest tracking to maintain a “cradle to grave” audit trail of documentation for HW disposal (for example, from original turn-in to final disposal).
- b.* Maintain automated records for all HW disposal transactions (for example, waste streams, waste codes, locations, quantities, prices, other pertinent information).
- c.* Monitor contract performance at time of pick-up by DOD personnel serving as the COR.
- d.* Conduct extensive past performance and technical evaluation of prime contractor and subcontractors prior to contract award and monitor during contract performance. The contractor selection process will include the following:
 - (1) Verification of permits and compliance status with the appropriate regulatory agencies.
 - (2) Evaluation of technical capabilities, to include on-site pre-award surveys as appropriate.
 - (3) Evaluation of previous performance history.
- e.* Conduct on-site post-award inspections of selected subcontractors (for example, treatment, storage, and/or disposal facility and transporters) to ensure compliance with regulatory requirements. This surveillance will include “no-notice” inspections of treatment and/or disposal sites used by the contractor.
- f.* Evaluate contractor performance and document current and past performance history in a performance database.
- g.* Ensure contract provisions comply with the Federal Acquisition Regulation and applicable Federal, state, and local safety, environmental, and transportation regulations.
- h.* Monitor contract costs to ensure competitive pricing as well as high quality contractor service.
- i.* Reduce start-up, administrative, and re-procurement costs by preparing and awarding long-term contracts, if in the best interest of DOD.

Glossary

Section I

Abbreviations

Section I contains abbreviations, brevity codes, and acronyms contained in AR 310–50. Section III contains abbreviations, brevity codes, and acronyms specific to this publication.

AAA

Army Audit Agency

AAPPSO

Army Acquisition Pollution Prevention Support Office

ACALA

U.S. Army Armament and Chemical Acquisition and Logistics Activity

ACM

asbestos-containing materials

ACSIM

Assistant Chief of Staff for Installation Management

ACTS

Army Compliance Tracking System

AFH

Army family housing

AFP

Annual Funding Program

AFV

alternative fueled vehicles

AG

Adjutant General

AGL

above ground level

ALMC

Army Logistics Management College

AMCOM

U.S. Army Aviation & Missile Command

AMS

Army management structure

ANSI

American National Standards Institute

APG

Aberdeen Proving Ground

ARAR

applicable or relevant and appropriate requirement

ARNG

Army National Guard

ARSTAF

U.S. Army Staff

ASA(I&E)

Assistant Secretary of the Army (Installations and Environment)

ASA(ALT)

Assistant Secretary of the Army (Acquisition, Logistics and Technology)

ASA(RDA)

Assistant Secretary of the Army for Research, Development, and Acquisition

ATM

automated teller machine

AUL

authorized use/user list

BACT

best available control technology

BBS

bulletin board system

BOQ/BEQ

bachelor officer quarters/bachelor enlisted quarters

BRAC

Base Realignment and Closure

C&D

construction and demolition

CEGS

U.S. Army Corps of Engineers guide specification

CEQ

Council on Environmental Quality

CERCLA

Comprehensive Environmental Response, Compensation, and Liability Act

CERFA

Community Environmental Response Facilitation Act

CFC

chlorofluorocarbon

CFR

Code of Federal Regulations

CMB

Configuration Management Board

CONUS

Continental United States

COR

contracting officer's representative

CPA

Chief of Public Affairs

CPO

civilian personnel office

CY

calendar year

CZMA

Coastal Zone Management Act

DASA(ESOH)

Deputy Assistant Secretary of the Army (Environment, Safety, and Occupational Health)

DASA(R&T)

Deputy Assistant Secretary of the Army (Research and Technology)

dB

decibel

DCSLOG

Deputy Chief of Staff for Logistics

DEH

Director of Engineering and Housing

DEMIL

demilitarization

DERA

Defense Environmental Restoration Account

DERP

Defense Environmental Restoration Program

DESCIM

Defense Environmental Security Corporate Information Management

DFAS

Defense Financial Accounting System

DIO

Director of Industrial Operations

DLA

Defense Logistics Agency

DNL

day-night average sound level

DODI

DOD instruction

DODR

DOD regulation

DOE

Department of Energy

DOL

Director of Logistics (Director of Supply)

DOT

Department of Transportation

DPTMS

Directorate of Plans, Training, Mobilization, and Security

DPW

Directorate of Public Works

DSERTS

Defense Sites Environmental Restoration Tracking System

DSMOA/CA

Defense-State Memorandum of Agreement/Cooperative Agreement

DTLOMS

Doctrine, Training, Leader Development, Organization, Materiel Requirements, and Soldier Support

EA

environmental assessment

EARC

Environmental Awareness Resource Center (formerly ETSC)

ECAR

Environmental Compliance Assessment Report

ECAS

Environmental Compliance Assessment System

EDMSC

Environmental Data Management Support Center

EIS

environmental impact statement

EO

Executive order

EOD

explosive ordnance disposal

EPA

U.S. Environmental Protection Agency

ER

engineering regulation

FAR

Federal Acquisition Regulation

FFA

Federal Facility Agreement

FIP

Federal Implementation Plan

FOA

field operating activity

FOIA

Freedom of Information Act

FOST

finding of suitability to transfer

FR

Federal Register

FS

feasibility study

FWPCA

Federal Water Pollution Control Act

FY

fiscal year

GAO

General Accounting Office

GOCO

Government-owned, contractor-operated

GSA

General Services Administration

HAZMAT

hazardous materials

HMMP

Hazardous Material Management Program

HN

host nation

HQ

headquarters

HQDA

Headquarters, Department of the Army

HUD

Department of Housing and Urban Development

IC

installation commander

ICUZ

Installation Compatible Use Zone

IG

inspector general

IPR

in progress review

ISR

Installation Status Report

JEMP

Joint Engineer Management Panel

JLUS

joint land use study

LAN

local area network

MACOM

major Army command

MCA

military construction, Army

MEDCOM

medical command

MIDI

Military Item Disposal Instruction

MIL-STD

Military standard

mm

millimeter

MOU

memorandum of understanding

MSC

major subordinate command

MSGP

multi-sector general permit

NEPA

National Environmental Policy Act

NFPA

National Fire Protection Association

NGB

National Guard Bureau

NHPA

National Historic Preservation Act

NORM/NARM

naturally occurring or accelerator produced radioactive material

NOV

notice of violation

NRC

Nuclear Regulatory Commission

NRDA

Natural Resource Damage Assessment

NSN

national stock number

NSPS

new source performance standards

NSR

new source review

NTU

nephler turbidity unit

O&M

operations and maintenance

OACSIM

Office of the Assistant Chief of Staff for Installation Management

OASA(I&E)

Office of the Assistant Secretary of the Army (Installations and Environment)

OCLL

Office of Congressional Legislation and Liaison

OCONUS

outside continental United States

ODCSOPS

Office of the Deputy Chief of Staff for Operations and Plans

ODEP

Office of the Director, Environmental Programs

OMA

Operations and Maintenance, Army

OMB

Office of Management and Budget

OSD

Office of the Secretary of Defense

OSHA

Occupational Safety and Health Administration/Act

OTJAG

Office of the Judge Advocate General

PAM

pamphlet

PAO

public affairs office (or officer)

PC

personal computer

PCB

polychlorinated biphenyl

pCi/L

picocuries per liter

PDSC

Professional Development Support Center

PL

public law

PM

program manager

PM10

particulate matter less than 10 microns

POC

point of contact

POL

petroleums, oils, and lubricants

POM

program objective memorandum

POV

privately-owned vehicle

PPBES

planning, programming, budgeting executing system

ppm

parts per million

PROSPECT

Proponent Sponsored Engineer Corps Training

QA/QC

quality assurance/quality control

R&D

research and development

RCS

requirements control symbol

RDT&E

research, development, test, and evaluation

RI

remedial investigation

RI/FS

remedial investigation/feasibility study

RMIS

Restoration Management Information System

ROA

Report of Availability

ROE

report of excess

ROI

return on investment

ROWPU

Reverse Osmosis Water Purification Unit

RPM

remedial project manager

RPMA

real property maintenance, Army

RPO

radiation protection officer

RRT

regional response team

RSC

Reserve Support Command

S&T

science and technology

SAPA

Office of the Secretary of the Army, Public Affairs

SECDEF

Secretary of Defense

SLUCM

Standard Land Use Coding Manual

SOFA

Status of Forces Agreement

SOH

safety and occupational health

SPB

Special Programs Branch

SQG

small quantity generator

SWAR

Solid Waste Annual Report

SWMU

Solid Waste Management Unit

TACOM

Tank Automotive and Armaments Command

TAG

The Adjutant General

TB

technical bulletin

TB MED

technical bulletin, medical

TC

training circular

TCP/IP

Transport Control Protocol/Internet Protocol

TDA

table of distribution and allowances

TEAM

The Environmental Assessment and Management (Guide)

TM

technical manual

TMP

technical management plan

TN

technical note

TO&E

table of organization and equipment

TRADOC

U.S. Army Training and Doctrine Command

TRI

toxic release inventory

TSCA

Toxic Substances Control Act

USACE

U.S. Army Corps of Engineers

USACHPPM

U.S. Army Center for Health Promotion and Preventive Medicine (formerly USAEHA)

USAEC

U.S. Army Environmental Center

USAES

U.S. Army Engineer School

USAF

U.S. Air Force

USAMC

U.S. Army Materiel Command

USAPC

U.S. Army Petroleum Center

USAR

U.S. Army Reserve

USC

United States Code

USCG

U.S. Coast Guard

UTM

universal transverse mercator

UXO

unexploded ordnance

VCSA

Vice Chief of Staff of the U.S. Army

WHP

wellhead protection

WRMP

Water Resource Management Program or Plan

yr

year

Section II**Terms****A-weighted sound level**

The A-scale sound level is a quantity in decibels, read from a sound level meter with A-weighting circuitry. The A-scale weighing discriminates against the lower frequencies according to a relationship approximating the auditory sensitivity of the human ear. A-weighted sound level measures the approximate relative annoyance of many common sounds.

Abandon

Treatment of military conventional explosive ordnance by burning, detonation, static fire (SF), or other method; accumulation, storage, or treatment before or in lieu of being abandoned by being treated by burning, detonation, SF, or other method (see 40 CFR 261.2(b), Identification and Listing of Hazardous Waste).

Aboveground storage tank

The entire outer surface area of the tank, excluding the bottom, is easily visible. The tank may be located within a vault as long as the vault is not backfilled and can be entered for tank external inspections.

Active range

A military range that is currently in service and is being used regularly for range activities.

Acquisition

Obtain, use, or control real property by purchase, condemnation, donation, exchange, easement, license, lease, permit, reinvestment, and recapture as defined in chapters 1-4, Estates and Methods of Acquisition (see AR 405-10); or, a directed, funded effort that is designated to provide a new or improved material capability in response to a validated need (DODI 5000.2).

Acquisition, life cycle (materiel)

Processes and procedures by which defense services identify requirements; conduct research, development, test and

evaluation; develop logistics support; field, maintain, and ultimately dispose of material systems and equipment; and upgrade existing systems and equipment.

Activity

A unit, organization, or installation that performs a function or mission; or a group on an installation or facility assigned space for a common usage or function and held operationally accountable by an authority other than the installation commander (for example, airfields, hospitals, arsenals, commissaries).

Advisory agencies

Departments or agencies that can make major contributions during response activities for certain types of discharges. The agencies are as follows:

- a.* Nuclear Regulatory Commission.
- b.* Department of Interior.
- c.* Department of Health and Human Services.
- d.* Department of Justice.
- e.* U.S. Environmental Protection Agency.
- f.* Federal Emergency Management Agency.
- g.* Department of State.
- h.* Department of Transportation.
- i.* Department of Energy.

Air pollutants

Includes carbon monoxide, sulfur oxides, hydrocarbons, particulate matter, nitrogen oxides, and photochemical oxidants associated in the formation of air pollution and chronic or acute health effects.

Alternative fuel

A substantially non-petroleum fuel as defined in PL 102-486 (1992).

Alternative fueled vehicle

A vehicle using alternative fuel, as defined in PL 102-486 (1992), section 301.

Applicable water quality standards

The water quality standards that are—

- a.* Promulgated by EPA per the CWA.
- b.* Adopted by a state and approved by EPA per section 303 of the CWA.

Army proponent

The lowest level decision-maker (that is, the Army unit, element, or organization responsible for initiating or carrying out the proposed action).

Attainment area

A region designated by the EPA as being in attainment with all National Ambient Air Quality Standards.

Authorized official

A DA representative with express written authority to discard conventional explosive ordnance. An authorized official provides written authorization to discard the conventional explosive ordnance. Conventional explosive ordnance is discarded and subject to RCRA regulation upon the receipt of written authorization to discard.

Best available control technology

An emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under the Clean Air Act, which would be emitted from any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application or production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion technique for control of such pollutant.

Best management practices

Methods, measures, or practices to prevent or reduce the contributions of pollutants to U.S. waters. Best management practices may be imposed in addition to, or in the absence of, effluent limitations, standards, or prohibitions.

C-weighted sound level

The C-scale sound level is a quantity, in decibels, read from a sound level meter with C-weighting circuitry. The C-scale incorporates slight de-emphasis of the low and high frequency portion of the audible spectrum. The C-weighted sound level measures the additional annoyance caused by the low frequency vibration of structures.

Catchment basins

An engineered device that attaches to and surrounds the fill pipe of underground storage tanks and becomes an integral part of the tank in order to positively contain spills and overflows at the fill opening. Used when fill pipe openings are oriented vertically and terminate at grade. Also called Spill Collection Manway.

Cathodic protection

An electrochemical process for preventing corrosion on a wide variety of metallic structures in electrolytes such as moist soil or water. The protection is provided by passing direct current continuously between electrodes in the electrolyte, one of which is the protected structure. One type of cathodic protection uses sacrificial anodes. A steel tank in contact with the ground is the cathode or protected metal, and a separate “sacrificial” anode, which usually consists of a bar, rod, or wire of dissimilar metal such as zinc or magnesium. The anode is consumed, or “sacrificed,” as electrical current passes from it through the electrolyte to the cathode (steel tank) because of the potential difference between the dissimilar metals. A second type of cathodic protection is an impressed current protection system. In this system, an electric current is introduced into the ground through a series of anodes that are not attached to the tank. Because the electric current flowing from these anodes to the tank system is greater than the corrosive current attempting to flow from it, the tank is protected from corrosion.

Chemical warfare agent

A substance that is intended for use in military operations to kill, seriously injure, or incapacitate man through its physiological effects.

Chlorofluorocarbons and halons

For the purposes of this instruction, see ozone depleting substances.

Civilian authorities

Civilian law enforcement units at the local, state, or Federal level.

Civilian munition destroyers

Civilian personnel of DOD Components who undergo formal training in, and whose mission is, the identification, handling, removal, and treatment of propellants, explosives, and pyrotechnics (PEP) materials and miscellaneous conventional explosive ordnance.

Closed range

A military range that has been taken out of service as a range and that either has been put to new uses that are incompatible with range activities or is not considered by the military to be a potential range area. A closed range is still under the control of a DOD component.

Coastal waters

Coastal waters generally include the following:

- a. Those U.S. waters navigable by or established for Government-owned, pleasure, or commercial vessels.
- b. The contiguous zone (see glossary entry below).
- c. Other waters subject to tidal influences.

Compatible land uses

Land uses that are compatible with the noise environment as defined in table 7-2.

Compliance agreement

Any negotiated agreement between regulatory agency and one or more regulated parties for the purpose of settling an enforcement action or attaining or maintaining compliance. The agreement must be entered into upon consent of all parties.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), section 102(a), substance

The term “CERCLA, section 102(a), substance” is a substance published on the list in 40 CFR 302.4.

Contiguous zone

The entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the

Contiguous zone. This zone, contiguous to the territorial sea, extends 200 miles seaward from the baseline from which the territorial sea is measured.

Conventional ordnance materiel

Includes liquid and solid propellants and explosives, pyrotechnics, riot control agents, smokes, and incendiaries used by DOD components. Includes bulk conventional explosive ordnance, rockets, missiles, warheads, devices, and components thereof. Excludes wholly inert items, toxic chemical agents, and nuclear warheads and devices.

Customs territory of the United States

The U.S. customs territory includes the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, and any other territory or possession over which the United States has jurisdiction. This term is used to determine who must comply with EPCRA and pollution prevention requirements in Executive Order 12856. "All Territories and possessions of the United States except the Virgin Islands, American Samoa, Wake Island, Midway Islands, Kingman Reef, Johnston Island and the Island of Guam." (19 USC 1401(h)).

DBA

Sound level in decibels, measured using the A-weighting network of a sound level meter.

Decibel

Decibel (db) is a unit measuring of sound pressure level.

Demilitarization

The act of removing the military offensive or defensive advantages of ammunition and explosives, which may or may not include the disposal of the item. The term encompasses various approved methods such as mutilation, destruction, or alteration to prevent further use for its originally intended military purpose, including the procedures followed by explosive ordnance disposal (EOD) units, civilian munition destroyers, and properly certified contract personnel. It applies equally to material in unserviceable or serviceable condition.

Discard

To provide written authorization that an item of conventional explosive ordnance meets the definition of "discarded material" in 40 CFR 261.2(a)(2), Identification and Listing of Hazardous Wastes, by completion of the following procedure:

- a. An authorized official records in writing the determination that the ordnance will be discarded rather than retained as an item of military ordnance.
- b. The conventional explosive ordnance custodian receives the written authorization from the authorized official that the ordnance is discarded and subject to RCRA regulation.

Discharge

A term that includes, but is not limited to, the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of a substance, into or on any land or water (40 CFR 260.10).

Discharge classifications (for oil)

The classifications of accidental discharges listed below, provided to guide the OSC, are criteria for general response actions. They are not criteria for reporting, nor do they imply associated degrees of hazard to the public health or welfare, nor are they measures of environmental damage. However, a discharge that is a substantial threat to the public health or welfare, or results in critical public concern, will be classed as a major discharge. Discharges are quantitatively measured as follows:

- a. *Minor discharge.* A discharge to the inland waters of less than 1,000 gallons of oil, or a discharge of less than 10,000 gallons of oil to the coastal waters.
- b. *Medium discharge.* A discharge of 1,000 gallons to 10,000 gallons of oil to the inland waters, or a discharge of 10,000 to 100,000 gallons of oil to coastal waters.
- c. *Major discharge.* A discharge of more than 10,000 gallons of oil to the inland waters, or more than 100,000 gallons of oil to the coastal waters.

Disposal

The discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into any land or water. The act is such that the solid waste or hazardous waste, or any constituent thereof, may enter the environment or be emitted into the air or discharged into any waters, including ground water (40 CFR 260.10).

Disposal (Real Property)

Any authorized method of permanently divesting DA of control of and responsibility for real property. This also includes sales as defined below. (Note that this definition varies according to the Army regulation consulted.)

Emergency Response Plan

An emergency response plan is a plan prepared by the Local Emergency Planning Committee (LEPC), which states the hazards and resources associated with the accidental release of an extremely hazardous substance, including methods and procedures to be followed by facility owners and operators and local emergency and medical personnel.

Emission standards

Limits on the quality of emissions that may be discharged to the atmosphere from any regulated source, established by Federal, state, local, and host nation authorities.

Enforcement action

Any written notice of a violation of any environmental law from a regulatory official having legal enforcement authority. Examples include, but are not limited to: warning letters, notice of noncompliance (NON), notice of violation (NOV), notice of significant noncompliance (NOSN), compliance order (CO), administrative order (AO), compliance notice order (CNO), and finding of violation (FOV).

Environment

All of the following:

- a. Navigable waters.
- b. Near-shore and open waters and any other surface water.
- c. Groundwater.
- d. Drinking water supply.
- e. Land surface or subsurface area.
- f. Ambient air.
- g. Vegetation.
- h. Wildlife.

The term “environment” includes water, air, and land and the interrelationship that exists among and between water, air, and land and all living things (see 42 USC 11049, Designation of Hazardous Substances).

Environmental agreement

Any agreement between a regulatory agency with authority to enforce environmental laws and one or more regulated parties. Environmental agreements include, but are not limited, consent orders, consent agreements, compliance agreements, memoranda of agreement, memoranda of understanding, cooperative agreement, IAGs, FFAs, and FFCAs.

Environmental audit

An environmental compliance review of facility operations, practices, and records to assess and verify compliance with Federal, state, and local environmental regulations. These reviews are not audits as defined in DOD Directive 7600.2. The USEPA defines environmental auditing as a systemic, documented, periodic, and objective review by regulated entities (Army installations) of facility operations and practices related to meeting environmental requirements.

Environmental awareness

Environmental knowledge or understanding of the importance of performing normal job skills in accordance with appropriate environmental requirements, and of consulting with environmental staff and Army or local compliance publications to determine specific procedures. Environmental awareness training is environmental knowledge provided by written information or presentations. It is often provided outside a normal classroom setting. It has limited applicability to teaching competence in specific environmental job skills. It is intended to promote an environmental stewardship ethic; create an understanding of how non-environmental missions and functions can effect the environment; and encourage consultation with environmental staff and Army or local compliance publications to determine specific procedures.

Environmental compliance officer

An individual assigned at a TDA or TO&E organization or unit to accomplish environmental compliance requirements on behalf of his or her responsible commander, director, or supervisor. The designated person also coordinates with supporting installation environmental staff for requirements clarification and assistance. In the National Guard, coordination is with USARNG state environmental staff; in the Reserves, with Regional Reserve Office environmental staff. The commander will determine organizational levels, and required grade or rank, suitable for assignment of compliance officer duties. Compliance officers are generally required at battalion and unit (company, battery, troop) level. In garrison directorates, they are generally required at division level (branch level if the organization generates

hazardous waste). In civil works organizations the environmental compliance coordinator is the equivalent of the environmental compliance officer.

Environmental condition of property

An environmental condition of property (ECOP) is a document that must be completed when the Army is transferring property to another federal agency.

Environmental condition of property category

The DOD developed 7 “*environmental condition of property*” categories defined below. These categories were developed to identify the environmental condition of all parcels of property at closing and realigning installations to expedite transfer or lease of affected areas.

Category 1. Definition: Areas where no release or disposal of hazardous substances or petroleum products has occurred (including no migration of these substances from adjacent areas).

Category 2. Definition: Areas where only release or disposal of petroleum products has occurred.

Category 3. Definition: Areas where release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial action.

Category 4. Definition: Areas where release, disposal, and/or migration of hazardous substances has occurred, and all remedial actions necessary to protect human health and the environment have been taken.

Category 5. Definition: Areas where release, disposal, and/or migration of hazardous substances has occurred, and removal or remedial actions are under way, but all required remedial actions have not yet been taken.

Category 6. Definition: Areas where release, disposal, and/or migration of hazardous substances has occurred, but required actions have not yet been implemented.

Category 7. Definition: Areas that are not evaluated or do not require additional evaluation.

Environmental enhancement

Actions taken to improve the environment. These actions include, but are not limited to, measures intended to abate environmental pollution and to meet environmental quality standards.

Environmental noise

The outdoor noise environment consisting of the noise, including ambient noise, from all sources that extends beyond the work place. The noise environment of the work place is not considered environmental noise.

Environmental pollution

The condition resulting from the presence of chemical, mineral, radioactive, or biological substances that—

- a. Alter the natural environment.
- b. Adversely affect human health or the quality of life, biosystems, the environment, structures and equipment, recreational opportunities, aesthetics, and/or natural beauty.

Environmental pollution control standard

Any one of the Federal, state, and regional quality standards established to protect and enhance environmental quality per—

- a. CAA.
- b. CWA.
- c. CERCLA of 1980, as amended by the SARA of 1986.
- d. The Noise Control Act.
- e. RCRA.
- f. TSCA.
- g. Other Federal statutes.

Environmental pollution control standards of general applicability in the host country or jurisdiction

a. These standards are the substantive pollution control standards applicable, in effect, and uniformly enforced according to—

- (1) National pollution control laws of the host country.
- (2) Regulations issued by host government agencies to implement national laws.

b. This term does not include pollution control standards enacted or adopted by local governmental units or political subdivisions that are the national pollution control laws that the host nation implements.

Environmental training

Instruction with the primary purpose of providing measurable competence for doing specific environmental jobs or

tasks. This is commonly taught in a classroom, by such methods as lecture, discussion, or practical exercise. However, other methods may also be used. Environmental training includes both separate environmental courses and environmental content in non-environmental courses. It also includes both training mandated by Federal or state regulation, and training not mandated by law or regulation but which is intended to prepare the trainee to meet the requirements of all applicable mandatory regulations.

Environmentally preferable

Products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, energy use, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.

EOD emergency

A situation involving the suspected or detected presence of unexploded ordnance that creates an immediate safety threat to civilian or military personnel or property. Range clearance operations are excluded. The situation calls for immediate action by EOD personnel or civilian munitions destroyers, to include properly certified civilian contractor personnel, to eliminate the threat by treating the explosive ordnance in place or rendering it safe and removing it to another location. The emergency action includes transportation and treatment to the extent necessary to abate the immediate threat. EOD emergencies can occur either on-installation, or off-installation in the public sector.

Explosive ordnance disposal

The detection, identification, field evaluation, rendering safe, recovery, and final destruction of UXO or unused munitions as a hazardous material. It may also include the rendering safe or treatment of used or unused munitions that have become hazardous by damage or deterioration, when the disposal of such EO requires techniques, procedures, or equipment that exceed the normal requirements for routine disposal.

Explosive

See “explosive ordnance.”

Extremely hazardous substance

The term “extremely hazardous substance” indicates a substance published on a list in 40 CFR 355, Emergency Planning and Notification. This list contains over 360 substances, including chemicals in pure form and mixtures. Placing a substance on this list reflects concern for the substance’s toxicity, reactivity, volatility, dispersability, combustibility, and/or flammability.

Facility

Facilities include buildings, structures, public works, equipment aircraft, vessels, and other vehicles and property under control of, or constructed or manufactured for leasing to, the Army. Any buildings or collection of buildings, grounds, or structure, as well as any fixture or part thereof, which is owned or held under a lease-acquisition agreement by the United States or any Federal agency. Also includes any building leased in whole or in part for use by the Federal Government where the term of the lease exceeds five years and the lease does not prohibit implementation of the provision in question.

Federal

The U.S. Government; this does not include a host nation government where the term “federal” is also applicable.

Federal agency

An executive agency as defined in 5 USC 105, executive agency, and for military departments as defined in 5 USC 102, Military Departments.

Federally permitted release

a. Federally permitted releases include the following:

(1) Discharges in compliance with permits issued under the FWPCAA; the Marine Protection, Research, and Sanctuaries Act of 1972; or the RCRA, as amended.

(2) Injection of fluids for enhanced oil recovery as authorized under the applicable state laws.

(3) Introduction of any pollutant into publicly-owned treatment works when such pollutant is specified and in compliance with applicable CWA pretreatment standards.

(4) Release of source, special nuclear, or byproduct material in compliance with a legally enforceable license, permit, regulation, or order issued pursuant to the Atomic Energy Act of 1954.

b. See the national contingency plan for a more detailed definition.

Fees

Any request for payment by a regulator for some type of service. Examples include, but are not limited to, permits, registrations, and inspections.

Fine

Any monetary penalty or assessment levied for violation of any environmental law or regulation.

Fire departments

“Fire departments” are organizations, either military or civilian, which provide fire protection and prevention service.

Formerly Used Defense Sites

Formerly Used Defense Sites (FUDs) are those properties previously owned, leased, or otherwise possessed or used by DOD for military purposes; or those properties conveyed to a contractor for industrial purposes under an official permit (Government owned-contractor operated) and later legally disposed of.

Government-owned/contractor operated

A Government-owned contractor operated (GOCO) facility that is owned by the Federal Government but all or portions of which are operated by private contractors.

Groundwater

The supply of water found beneath the Earth’s surface, usually in aquifers that supply wells and springs.

Harmful discharge

Harmful discharges (of oil) into navigable waters of the contiguous zone are such that they do at least one of the following:

- a. Violate applicable water quality standards.
- b. Cause a film or sheen upon, or discoloration of, the surface of the water or adjoining shorelines.

Hazardous chemical

As defined in 40 CFR 335 and 370, which implement EPCRA. These sections define a hazardous chemical the same as in 29 CFR 1910.1200(c), OSHA Regulation on Hazardous Communications, Worker’s Right To Know, except that they do not include the following substances:

- a. Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration.
- b. Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use.
- c. Any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and used by the general public.
- d. Any substance to the extent it is used in a research facility under the laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual.
- e. Any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer.

Hazardous material

A material as defined by Federal standard, material safety data, transportation data and disposal data for hazardous materials furnished to government activities ((FED-STD-313C, 3 Apr 1996) (The General Services Administration has authorized the use of this federal standard by all federal agencies)).

a. Any item or chemical which is a “health hazard” or “physical hazard,” as defined by OSHA in 29 CFR 1910.1200, which includes the following:

(1) Chemicals that are carcinogens, toxic, or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucus membranes.

(2) Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive.

(3) Chemicals that in the course of normal handling, use, or storage operations may produce or release dusts, gases, fumes, vapors, mists or smoke that have any of the above characteristics.

b. Any item or chemical that is reportable or potentially reportable or notifiable as inventory under the requirements of the Hazardous Chemical Reporting (40 CFR part 370), or as an environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR part 372), which includes: chemicals with special characteristics that in the opinion of the manufacturer can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting,

escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

c. Any item or chemical that, when being transported or moved, is a risk to public safety or an environmental hazard and is regulated as such by one or more of the following:

- (1) Department of Transportation Hazardous Materials Regulations (49 CFR 100-180).
- (2) International Maritime Dangerous Goods Code of the International Maritime Organization.
- (3) Dangerous Goods Regulations of the International Air Transport Association.
- (4) Technical Instructions of the International Civil Aviation Organization.
- (5) U.S. Air Force Joint Manual, Preparing Hazardous Materials for Military Air Shipments (AFJMAN 24-204).

Hazardous materiel

Any materiel that contains hazardous materials.

Hazardous substance

A substance as defined by section 101(14) of CERCLA:

a. For the purposes of this regulation a hazardous substance is any of the following:

- (1) Any substance designated pursuant to section 311(b)(2)(A) of the CWA.
- (2) Any element, compound, mixture, solution, or substance designated pursuant to section 102 of the CAA.
- (3) Any hazardous waste having the characteristics identified under the RCRA.
- (4) Any toxic pollutant listed under TSCA.
- (5) Any hazardous air pollutant listed under section 112 of the CAA.
- (6) Any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to subsection 7 of TSCA.

b. The term does not include—

(1) Petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance in paragraph a above.

(2) Natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas usable for fuel).

c. A list of hazardous substances is found in 40 CFR 302.4, Designation of Hazardous Substances.

(1) Anything that due to its chemical, physical, or biological nature causes safety, public health, or environmental concerns.

(2) Any material that—

(a) Is regulated as a hazardous material per 49 CFR 173.2, Shippers-General Requirements for Shipment and Packaging.

(b) Requires an MSDS per 29 CFR 1910.1200, OSHA Hazard Communications Standards.

(c) During its end use, treatment, handling, packaging, storage, transportation, or disposal, meets or has components that meet or have the potential to meet, the definition of hazardous waste as defined by 40 CFR 261, Identification and Listing of Hazardous Waste, subparts A, B, C, or D.

(3) In general, any material, which because of its quality, concentration, or physical chemical, or infectious characteristics, may pose a substantial hazard to human health or the environment.

Hazardous waste

A solid waste identified in 40 CFR 261.13, Identification and Listing of Hazardous Wastes, or applicable foreign law, rule, or regulation (see also solid waste).

Hazardous waste disposal

As defined in 40 CFR 260.10, Hazardous Waste Management Systems, disposal means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

Hazardous waste generator

The hazardous waste generator is defined in 40 CFR 260.1 as “...any person, by site whose act or process produces hazardous waste identified or listed in part 261... or whose act first causes a hazardous waste to become subject to regulation.” For reporting purposes in the Army, the IC is considered the generator.

Hazardous waste storage

As defined in 40 CFR 260.10, is "...the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere."

Hazardous waste treatment

As defined in 40 CFR 260.1, is "any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume."

Hazardous waste account

An inventory account system that includes explosive ordnance, manufacturing material, and processing and treatment residue that have been determined to be hazardous waste.

Hold for reason

Temporarily holding recovered explosive ordnance for a purpose other than treatment. This includes situations such as evidence in law enforcement proceedings and accident investigations, technical evaluation by EOD personnel, and other purposes unrelated to being held for treatment. Also includes material identified to be held for R&D requirements.

Improvised explosive device

Those devices placed or fabricated in an improvised manner incorporating destructive, lethal, noxious, pyrotechnic or incendiary chemicals, designed to destroy, disfigure, distract, or harass. They may incorporate military stores, but are normally devised from non-military components. They may be referred to as improvised chemical devices (ICD) or high-tech IED (HTIED) when the situation or components of the device make it appropriate to do so.

Inactive range

A military range that is not currently being used, but that is still under military control and is considered by the military to be a potential range area, and that has not been put to a new use that is incompatible with range activities.

Incompatible land uses

Land uses that are not compatible with the noise environment as defined in table 7-2.

Industrial installation

An installation that has the primary mission of producing, maintaining, or rehabilitating military material.

Inspections

Any visit by a regulatory agency, with legal authority, for the purpose of assessing regulatory compliance.

Installation

A grouping of facilities, located in the same general vicinity, over which the IC has authority. An aggregation of real property holdings, under the jurisdiction of DOD, with one or more permanently assigned units or activities and a military service staff to provide operations support.

Installation Response Team

Those collective persons on an installation designated to act in an emergency to perform functions directed by the OSC.

Integrated pest management

The management of actual and potential pest problems using a combination of available preventive and corrective control measures. The biological effectiveness, environmental acceptability, and cost effectiveness of the measures must be considered before such measures can be approved for use on Army-controlled property.

Integrated training area management

The integrated training area management (ITAM) program is a management and decisionmaking process to integrate Army training and other mission requirements for land use with sound natural resource management of land.

Inventory

Military explosive ordnance stored in serviceable condition, ready for issue and use, or unserviceable stocks pending

maintenance or disposition instructions. Also includes industrial components and raw materials for production use and explosive ordnance classified as in unserviceable condition, pending resolution of disposition instructions.

Life cycle

“Life cycle” means concept, design, development, testing, production, deployment, training, maintenance, supply management, distribution, and disposal/demilitarization of a product (comprehensive DOD pollution prevention strategy).

Life cycle cost

The amortized annual cost of a product, including capital costs, installation costs, operating costs, maintenance costs, and disposal costs discounted over the lifetime of the product.

Line leak detector

Pressure-sensitive valve installed in the piping of liquid dispensing systems using submerged turbine pumps. Upon detecting an unusually low pressure drop in the piping system, this valve automatically restricts the flow of liquid.

Listed hazardous substance

- a. A substance designated under any of the following:
 - (1) Sections 207(a) and 311(b)(2)(A) of CWA.
 - (2) Section 112 of CAA.
 - (3) Section 7 of TSCA.
- b. Any hazardous waste listed under or having the hazardous waste characteristics identified according to section 3001 of the RCRA.
- c. Any substance listed under section 102 of CERCLA.

Listed quantity

Reportable quantity under section 311 of the CWA, or one pound.

Load, assemble, and pack

Operations conducted by manufacturing/industrial facilities that load, assemble, and pack (LAP) explosive ordnance.

Local Emergency Planning Committee

Local Emergency Planning Committee (LEPC) is a group of people appointed by the State Emergency Response Commission (SERC) to receive and forward information to the public concerning hazardous substance inventory and release in a designated emergency planning district.

Low level radioactive waste

Radioactive waste not classified as high level radioactive waste, transuranic waste, or a byproduct material as defined in section 11e(2) of the Atomic Energy Act of 1954 (42 USC 2014(e)(2)). (See also radioactive material below.)

Major modification

See definition of new major source (or major modification).

Manufacturing reject

Explosive ordnance generated during the manufacturing, processing, loading, testing, and depot level work/rework of military explosive ordnance that does not meet specification but is safe to handle and store.

Manufacturing residues

PEP materials or PEP-contaminated materials generated during the processing, loading, testing, and depot level work/rework of military explosive ordnance.

Material safety data sheet

A material safety data sheet (MSDS) is the sheet required to be developed under 29 CFR 1910.1200(g).

Military munitions

All ammunition products and components produced or used by or for DOD or the U.S. Armed Services. Military munitions include: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components thereof.

Military range

A designated land or water area set aside, managed, and used to conduct research on, develop, test, and evaluate military munitions and explosives, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas.

Mobil source

Any non-stationary source of air pollution such as cars, trucks, motorcycles, buses, airplanes, or locomotives.

Monitoring

The assessment of emissions and ambient air quality conditions. The following monitoring techniques are used—

- a.* Emission estimates.
- b.* Visible emission readings.
- c.* Diffusion or dispersion estimates.
- d.* Sampling or measurement with analytical instruments.

National ambient air quality standards

The National ambient air quality standards (NAAQS) are those standards established according to the CAA to protect health and welfare.

National Environmental Policy Act

A United States statute that requires all Federal agencies to consider the potential effects of proposed actions on the human and natural environment.

National Response Team

A team of representatives from the primary and advisory agencies that serves as the national policy-making body for planning and preparedness actions to prevent and minimize accidental pollution discharges.

New major sources (or major modification)

A new major source or major modification is a source of air emission that—

- a.* Meets the definition of construct at 40 CFR 52.21(b)(8), Prevention of Significant Deterioration of Air Quality; and
- b.* Meets the definition of building at 40 CFR 52.21(b)(6) or 52.24(f)(2); and
- c.* Meets the definition of stationary source at 40 CFR 52.21(b)(1)(i) or 52.24(f)(1); and
- d.* Meets the definition of significant at 40 CFR 52.21(b)(23) or 52.24(f)(10); and
- e.* Meets one of the following definitions of major or major modified source—
 - (1) Meets the definition of a major source at 40 CFR 52.21(b)(1)(i) or 52.24(f)(4)(i); or
 - (2) Meets the definition of a major modified source at 40 CFR 52.21(b)(2).

Nonattainment area

Areas that have been determined to have poor air quality. For nonattainment areas, states must develop plans using pollution control measures, including alternative and clean-fueled vehicles, which will eventually bring the areas into attainment. A nonattainment area is a region designated by the EPA as exceeding the National ambient air quality standards for one of the seven criteria pollutants. The EPA has defined the following pollutants as criteria pollutants at 40 CFR 50.3, National primary and secondary ambient air quality standards: sulfur dioxide, particulate matter, carbon monoxide, ozone, nitrogen dioxide, and lead.

Oil

Oil or petroleum products of any kind or in any form and oil mixed with wastes other than dredged spoil.

On-scene coordinator

a. An on-scene coordinator (OSC) is the Federal official predesignated by EPA or USCG to coordinate and direct Federal responses under subpart D, and removals under subpart E, of the national contingency plan.

b. The DOD or U.S. Department of Energy official designated to coordinate and direct the removal actions from releases of hazardous substances, pollutants, or contaminants where either the release is on, or the sole source of the release is from, any facility or vessel under the jurisdiction, custody, or control of their departments respectively.

c. The official designated by any other Federal department or agency to coordinate and direct removal actions other than emergencies where either the release is on, or the sole source of the release from, any facility or vessel under the jurisdiction, custody, or control of those departments and agencies.

Open burning

The combustion of any material without the characteristics described below:

- a. Control of combustion air to maintain adequate temperature for efficient combustion.
- b. Containment of the combustion reaction in an enclosed device to provide enough residence time and mixing for complete combustion.
- c. Control of emission of the gaseous combustion products.

Open detonation

Unconfined, violent reaction of propellants, explosives, and pyrotechnics (PEP) or explosive ordnance without the control of combustion air, containment of the combustion reaction in an enclosed device, or control of emissions of gaseous and particulate combustion products.

Ordnance

(See explosive ordnance.)

Outgrant

A legal document that conveys or gives the right to use Army-controlled real property, including, for the purposes of this regulation only, leases and when appropriate, easements.

Ozone depleting substances

Substances controlled internationally under the Montreal Protocol, and nationally under title VI of the Clean Air Act Amendments. This includes both Class I and Class II substances as follows:

- a. "Class I substance" is any substance designated as Class I in the Federal Register notice of 30 July 1992 (57 FR 33753), including chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform and any other substance so designated by the EPA by regulation at a later date.
- b. "Class II substance" is any substance designated as Class II in the Federal Register notice of 30 July 1992 (57 FR 33753), including hydrochlorofluorocarbons and any other substance so designated by the EPA by regulation at a later date (see EO 12843, Procurement Requirements and Policies for Federal Agencies for ODSs).

PEP

Term used to refer collectively to propellants, explosives, and pyrotechnics.

Permit

A permit is the temporary authority conferred on another Federal agency to use real property under the jurisdiction of a military department for an act or series of acts. The Secretary of the Army (SA) may, in the exercise of general administrative authority over property under his jurisdiction, custody and control, grant permits to other Federal agencies where the user does not interfere with the purpose for which the property was originally acquired and retained. Permits may be revocable at will or at a time specified.

Permit, environmental

Authorization from an environmental regulatory agency to operate a facility, discharge, or emit pollutants to an authorized standard, or perform an activity with environmental effects.

Pollution

See "environmental pollution."

Pollution/pollutant

The terms "pollution" and "pollutant" refer to all nonproduct outputs, irrespective of any recycling or treatment that may prevent or mitigate releases to the environment.

Pollution prevention

"Pollution prevention" means "source reduction," as defined in the Pollution Prevention Act (PPA) of 1990 (42 USC 130101-13109), and other practices that reduce or eliminate the creation of pollutants through—

- a. Increased efficiency in the use of raw materials, energy, water, or other resources.
- b. Protection of natural resources by conservation (see also "source reduction").

Pollution prevention device

Any device that reduces the possibility of a release, minimizes the effect of a release, or provides warning of an imminent or actual release. Devices include spill protection, secondary containment, leak detection systems, interstitial monitoring, physical security, tank farm lighting, and rainwater retention and control devices.

Pollution prevention opportunity assessment

Pollution prevention opportunity assessment (PPOA) is the process of collecting data for identifying processes, and quantifying hazardous materials used, pollutants released to air, land, and water, and hazardous and non-hazardous waste resulting from the processes; developing opportunities in source reduction, recycling, or waste minimization to reduce or eliminate pollution; analyzing the technical, environmental, and economic feasibility of each opportunity; and ranking feasible opportunities.

Postconsumer material

A material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. "Postconsumer Material is part of the broader category of 'Recovered Material'" (EO 12873, Federal Acquisition, Recycling and Waste Reduction).

Potential to emit

The maximum capacity of a stationary source to emit pollutant under its physical and operational design.

Primary agencies

The Federal departments or agencies comprising the NRT (that is, the Departments of Commerce, Interior, Transportation, and Defense; and the EPA). These agencies have primary responsibility and resources to promote effective operation of the national oil and hazardous substances pollution contingency plan.

Procurement

The acquiring by contract with appropriated funds for supplies or services by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated.

Propellant

A reactive, energetic material formulated to deflagrate producing instantaneous energy sufficient to propel an object, such as a bullet, projectile, torpedo, rocket, or missile.

Public health welfare

All or any factors affecting human health welfare.

Public use of data

The general public has a right to access information provided under EPCRA to the EPA administrator, governor, SERC, or LEPC, except in the case of trade secret information. LEPCs publish the availability of the information in local newspapers, and the EPA publishes information on toxic chemical releases in the CFRs.

Pyrotechnic

A reactive, energetic material that undergoes reaction to produce audible or visible effects, such as illumination, colored lights, smoke, or noise.

Qualifying Recycling Program

Qualifying Recycling Program (QRP) involves organized operations that require concerted efforts to divert or recover scrap or waste, as well as efforts to identify, segregate, and maintain the integrity of the recyclable materials in order to maintain or enhance their marketability. A QRP includes adherence to a control process providing accountability for all materials processed through program operations.

Radioactive material

Any material or combination of materials that spontaneously emits ionizing radiation.

Radon

A colorless naturally occurring, radioactive, inert gas formed by radioactive decay of radon atoms in soil or rocks.

Range clearance

The periodic elimination of unexploded ordnance that failed to function and is found on ranges. It includes treatment on site, collection and treatment within the range, and removal of Research, Development, Test, and Evaluation ordnance subjected to subsequent examination or test.

Real property

This includes the definition for real property found in the Federal Property Management Regulations, 41 CFR 101-47.103.12.

Reclamation

Regeneration of a material, or processing of a material to recover a usable product. Examples include recovery of lead from spent batteries or the regeneration of spent solvents.

Recovered material

Waste materials and byproducts that have been recovered or diverted from solid waste. This term does not include those materials and byproducts generated from and commonly reused within an original manufacturing process (42 USC 6903(19), Solid Waste Disposal Definitions).

Recycling

The series of activities, including separation and processing, by which products or other materials are reclaimed, recovered, and reused either on or off site.

Regional administrator

The regional administrator of the EPA regional office in which the subject properties are located.

Regional Response Team

A Regional Response Team (RRT) is a team of regional Federal representatives of the primary or selected advisory agencies. It acts within its region as an emergency response team that performs functions like those of the NRT.

Release

A discharge of one or more hazardous substances into the environment by any means. Excluded are—

- a.* Minor releases within the workplace.
- b.* Emissions from engine exhaust.
- c.* Normal applications of fertilizer.

Remove

The movement of conventional explosive ordnance by EOD personnel or civilian munitions destroyers, including properly trained contract personnel, from the location found to a treatment, holding, or storage area.

Render-safe

The portion of EOD procedures that provides for the interruption of functions or separation of essential components of explosive ordnance to prevent an unacceptable detonation. A “render-safe” procedure may make an explosive ordnance item safer to handle, but it does not necessarily remove the safety hazard associated with it. In some cases, the render-safe procedure includes destruction of the conventional explosive ordnance.

Reportable quantity

Reportable quantity (RQ) is the quantity of environmental pollutant above which a report must be rendered to environmental authorities such as the EPA, state or local regulators.

Reportable spill or event

A release of a reportable quantity of oil or hazardous substance into the environment.

a. For oil (defined by 40 CFR 110, Discharge of Oil): A discharge of such quantities of oil into or upon the navigable waters of the United States, its adjoining shorelines, or the contiguous zone so as to meet the qualifications listed in harmful discharge (of oil) into navigable waters or into or beyond the contiguous zone above.

b. For hazardous substances: Any release of one or more reportable substances in reportable quantities into the environment, requiring that—

- (1) The EPA National Response Center be notified immediately.
- (2) All other reporting as required by paragraph 8-3.

Research, development, test, and evaluation ordnance

Ordnance utilized in performance of the RDT&E mission. It may be standard conventional explosive ordnance undergoing comparison tests, standard items that have been modified to gather information, or items generated from various ammunition components for RDT&E purposes.

Resource Conservation and Recovery Act

A Federal law (42 USC 6901 et seq.) that established requirements for the management of hazardous waste. RCRA

established specific requirements for hazardous waste generators, transporters, and owners/operators of hazardous waste treatment, storage, and disposal facilities (see 40 CFR parts 260-271).

Resource recovery and disposition account

The resource recovery and disposition account (RRDA) is a status code assigned to ordnance. Assets assigned this status are no longer in the active inventory available for issue and use by troops. RRDA designation indicates that the assets are being evaluated for potential recovery and/or reuse, prior to being considered for discarding.

Reuse

A material is used or reused if it is either—

- a.* Used as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as a feedstock in another process).
- b.* Used in a particular function or application as an effective substitute (for example, spent battery acid accumulated by the DRMO could be used in industrial waste-water treatment facilities to precipitate phosphorous and act as a sludge conditioner).

Sale

The divesting of the United States of America of all title to real property, usually by deed.

Secondary containment

Refers to secondary containment designed to contain all leaks and spills from tanks and their associated underground equipment (tank piping). Secondary containment must be designed to prevent the escape of leaks and spills into the surrounding soil, groundwater, and/or surface water. Common options are: dike areas constructed of concrete with a pad (floor); double wall tanks and piping; liners that completely cover the bottom and side walls of a tank excavation or dike area; and vaults, which are rigid structures (that is, concrete) located within the ground and that serve to completely isolate the tank system from the surrounding soil. All forms of secondary containment must be installed 100 percent around the tank and associated underground equipment; must be designed to contain at least 110 percent of the capacity of the largest tank within its boundary plus be designed or operated to prevent run-on or infiltration of precipitation from a 25-year, 24-hour rainfall; and must be impervious to the material being stored. Impervious being confined as chemically compatible with the material being stored and capable of forming a barrier through which the material cannot penetrate to enter the surrounding area.

Sludge

“Any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant” (40 CFR 260.10).

Solid waste

Materials that are discarded by being abandoned or by being recycled, or are inherently waste-like (refer to the definition of “abandon” in this section). Recycled means to use, reuse, or reclaim certain types of materials in certain limited cases as described in table 1 of 40 CFR 261.2, Identification and Listing of Hazardous Waste. Since explosive ordnance is not a type of material listed in table 1, its recycling normally does not make it a solid waste under RCRA. Unused explosive ordnance normally is not inherently waste-like.

Source reduction

The Federal Pollution Prevention Act defines source reduction as follows:

- a.* “Any practice that—
 - (1) Reduces the amount of any hazardous substance, pollutant, or containment entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, and disposal.
 - (2) Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.
- b.* The term includes equipment or technology modification, process or procedure modification, reformulation or redesign of products substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.”
- c.* Source reduction does not entail any form of waste management (for example, recycling and treatment).

Spill

A generic term, as used in this publication, which encompasses the accidental and the deliberate but unpermitted, discharge or release of a pollutant. For distinction, see discharge classifications, harmful discharge (etc.), potential discharge, release, and reportable spill or event. For comparison, see discharge and federally permitted release.

State Emergency Response Commission

The State Emergency Response Commission is a group of people or an existing state-sponsored organization appointed by the governor to receive and forward information to the public concerning hazardous substance inventory and release.

Static-fire

Functioning an ordnance item, such as a rocket, missile, or catapult while it is securely fastened to prevent flight for the purpose of testing or treatment.

Stationary source

Any building, structure, facility, or installation which emits or may emit an air pollutant for which a national standard is in effect.

Status of Forces Agreements

Agreements on the stationing or operations of forces to which the United States is a party, such as the following:

- a.* Multilateral or bilateral stationing or base rights agreement.
- b.* Arrangements or understanding concluded thereunder.

Storage

The holding of hazardous substances (as defined in this section), other than for a temporary period of less than 30 days, prior to the hazardous substance being either used, neutralized, disposed of, or stored elsewhere.

Thermal treatment

Treatment of explosive ordnance using elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the explosive ordnance. Examples include incineration, OB, OD, SF, molten salt pyrolysis, wet air oxidation, calcination, and microwave discharge (see 40 CFR 260.10).

Toxic chemical

The term “toxic chemical” is a substance published on the list in 40 CFR 372.65, Toxic Chemical Release Reporting. About 650 chemicals and chemical categories, both in pure and mixture form, are currently listed.

Toxic pollutant

Those pollutants or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism—either directly from the environment or indirectly by ingestion through food chains—will cause death, disease, behavioral abnormalities, cancer, generic mutations physiological malfunctions, including malfunctions in reproduction, or physical deformations in such organisms or their offspring.

Transfer, real property

Change in jurisdiction over real property from one federal agency or department to another, including military departments and defense agencies, to include permits for the purposes of this regulation only. (See AR 405-90, Disposal of Real Estate, for the full definition.)

Transferred range

A military range that is no longer under military control and has been leased, transferred, or returned to another entity, including federal entities.

Transferring range

A military range that is proposed to be transferred from DOD to another federal entity or disposed of by conveying title to a non-federal entity.

Treat

Conducting a methodology, technique, or process designed to change the physical, chemical, or biological character or composition of a material to recover energy, render material less or non-hazardous, or reduce material volume (see “treatment” under 40 CFR 260.10).

Treat in-place

Destruction of explosive ordnance where it is found because it is too dangerous to move.

Ultimate disposition

This term includes recycling or reuse, and storage, treatment, and disposal per applicable regulations.

Underground injection

The subsurface emplacement of fluids through—

- a.* A bored, drilled, or driven well.
- b.* A dug well where the depth of the dug well is greater than the largest surface dimension.

Underground storage tank

An underground storage tank (UST) is any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of the underground pipes connected thereto) is ten percent or more beneath the surface of the ground. (Army policy does not exclude heating oil tanks as given under subtitle I of RCRA.)

Unexploded ordnance

Military munitions that have been primed, fused, armed, or otherwise prepared for action, and have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installation, personnel, or material and remain unexploded either by malfunction, design, or any other cause.

U.S. jurisdiction

The 50 United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, the Trust Territory of the Pacific Islands, and any other territory or possession over which the United States has jurisdiction.

Vessel

Any type of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, other than a public vessel.

Waste minimization

- a.* Any source reduction or recycling activity that is undertaken by a generator that results in—
 - (1) The reduction of the quantity of hazardous waste.
 - (2) The reduction in toxicity of hazardous waste that is either generated or subsequently treated, stored, or disposed of. Such activities must be consistent with the goals of minimizing present and future threats to human health and the environment.
- b.* A working definition of waste minimization reflects two types of activities, source reduction or elimination of waste at the point of generation (for example, within a process). Recycling refers to—
 - (1) The use or reuse of a waste stream byproduct as an effective substitute for a commercial product or as an ingredient or feedstock in a process.
 - (2) The reclamation of a waste material that involves recovery of whatever constituent fractions can be reused.

Section III**Special Abbreviations and Terms**

This publication uses the following abbreviations, brevity codes, and acronyms not contained in AR 310-50.

AALA

American Association for Laboratory Accreditation

ADNL

A-weighted day-night average sound level

AEDA

ammunition, explosives, and/or dangerous articles

AERTA

Army Environmental Requirements and Technology Assessments

AIHA

American Industrial Hygiene Association

AL

action level

AST

aboveground storage tank

ATSDR

Agency for Toxic Substances and Disease Registry

BCA

base closure account

BCP

BRAC Cleanup Plan

BCT

BRAC Cleanup Team

BEC

BRAC environmental coordinator

BRAC

base realignment and closure

BTC

base transition coordinator

BUR

bottom-up review

CAA

Clean Air Act

CAAA

Clean Air Act Amendments of 1990

CCR

Consumer Confidence Report

CDNL

C-weighted day-night average sound level

CDR

covenant deferral request

CE

conditional exemption

CECOM

U.S. Army Communications-Electronics Command

CEMP

U.S. Army Corps of Engineers Directorate of Military Programs

CESQG

conditionally exempt small quantity generator

CRADAS

Cooperative Research and Development Agreements

CRP

Community Relations Plan

CTC

cost-to-complete

CW

civil works

CWA

Clean Water Act

CWF

civil works facility

CWS

community-water system

DAIM-BO

Department of the Army Installation Management - BRAC Office

DAIM-ED

Department of the Army Installation Management - Environmental Directorate

DAJA-EL

Department of the Army, Judge Advocate - Environmental Law

DBP

disinfectants and disinfection byproducts

DD

decision document

DDESB

Department of Defense Explosives Safety Board

DENIX

Defense Environmental Network and Information Exchange

DEP

Director of Environmental Programs

DPG

Defense Planning Guidance

DRMO

Defense Reutilization and Marketing Office

DRMS

Defense Reutilization and Marketing Service

DSP

disposal support package

DUSD(ES)

Deputy Undersecretary of Defense (Environmental Security)

EBS

environmental baseline survey

EC

environmental coordinator

ECOP

environmental condition of property (a document)

ECP

environmental condition of property category

ELLAP

Environmental Lead Laboratory Accreditation Program

ELS

environmental law specialist

ENF

enforcement action

ENMP

Environmental Noise Management Program/Plan

EP

engineering pamphlet

EPCRA

Emergency Planning and Community Right-to-Know Act

EPR

environmental program requirements

EQCC

Environmental Quality Control Committee

EQR

Environmental Quality Report

EQT

environmental quality technique

ER,A

environmental restoration, Army

ERIS

Environmental Restoration Information System

ESA

Endangered Species Act

ESTCP

Environmental Security Technology Certification Program

ETA

early transfer authority

ETIPT

Environmental Technology Integrated Process Team

ETSC

Environmental Training Support Center (now EARC)

ETTC

Environmental Technology Technical Council

FGS

final governing standards

FIFRA

Federal Insecticide, Fungicide, and Rodenticide Act

FOSL

finding of suitability to lease

FOSET

finding of suitability to early transfer

FOTW

federally-owned treatment works

FP

firing point

FRP

Facility Response Plan

FTC POC

fast track cleanup point of contact

FUDS

Formerly Used Defense Sites

GIS

Geographical Information System

GO/SE

general officer/senior executive

GWR

Ground Water Rule

GWUDI

ground water sources under the direct influence of surface water

HAP

hazardous air pollutant

HAZCOM

hazard communication

HMCG

hazardous material control group

HOT

heating oil tank

HRS II

Hazard Ranking System (revision 2)

HSMS

Hazardous Substance Management System

HSWA

Hazardous and Solid Waste Amendments

HTIS

hazardous technical information services

HTRW

hazardous, toxic, and radioactive waste

HW

hazardous waste

IAG

interagency agreement

IAP

Installation Action Plan

ICAP

Installation Corrective Action Plan

IESWTR

Interim Enhanced Surface Water Treatment Rule

IMA

installation medical authority

IMDG

International Maritime Dangerous Goods

IRDMIS

Installation Restoration Data Management Information System

IRP

Installation Restoration Program

IRT

installation response team

ISWM

integrated solid waste management

ISWMP

Integrated Solid Waste Management Plan

ITAM

integrated training area management

IWTS

Industrial Wastewater Treatment Systems

LAER

lowest achievable emission rate

LBP

lead-based paint

LCC

life cycle cost

LCCA

Lead Contamination Control Act

LEPC

local emergency planning committee

LHMP

Lead Hazard Management Program

LLRW

low-level radioactive waste

LUC

land use control

MACT

maximum achievable control technology

MCL

maximum contaminant level

MCLG

maximum contaminant level goal

MF

million fibers

MP

management practices/plans

MPRSA

Marine Protection, Research, and Sanctuaries Act

MRDL

maximum residual disinfectant level

MRDLG

maximum residual disinfectant level goal

MS4

municipal separate storm sewer system

MSA

Metropolitan Statistical Area

MSDS

material safety data sheet

NAAQS

National Ambient Air Quality Standards

NCP

National Contingency Plan

NESHAP

National Emission Standards for Hazardous Air Pollutants

NLR

noise level reduction

NPDES

National Pollutant Discharge Elimination System

NPL

national priorities list

NTNCWS

nontransient noncommunity water systems

NVLAP

National Voluntary Laboratory Accreditation Program

OB/OD

open burning/open detonation

ODS

ozone depleting substance

ODUSD(ES)

Office, Deputy Undersecretary of Defense for Environmental Security

OEBGD

Overseas Environmental Baseline Guidance Document

OPA

Oil Pollution Act

OSC

on-scene coordinator

P2

pollution prevention

PA/SI

preliminary assessment/site inspection

PE

professional engineer

PIRP

Public Involvement and Response Plan

POTW

publicly-owned treatment works

PPOA

pollution prevention opportunity assessment

PSD

prevention of significant deterioration

PWS

public water system

PWTB

Public Works Technical Bulletin

QRP

quality recycling program

RA

remedial action

RAB

Restoration Advisory Board

RCRA

Resource Conservation and Recovery Act

RHA

Rivers and Harbors Act of 1899

RMP

Risk Management Plan

ROD

record of decision

RRSE

relative risk site evaluation

SARA

Superfund Amendments and Reauthorization Act

SCP

Spill Contingency Plan

SDWA

Safe Drinking Water Act

SEP

supplemental environmental project

SERDP

Strategic Environmental Research and Development Program

SF

static fire

SIP

State Implementation Plan

SPCC

Spill Prevention, Control, and Countermeasures Plan

SSA

sole source aquifer

SWAP

Source Water Assessment & Protection

SWTR

Surface Water Treatment Rule

TAPP

technical assistance for public participation

TNCWS

transient noncommunity water systems

TRC

technical review committee

TSDF

treatment, storage, and disposal facility

TT

treatment technique

UIC

underground injection control

USACERL

U.S. Army Construction Engineering Research Laboratories

USAEHA

U.S. Army Environmental Hygiene Agency (now USACHPPM)

UST

underground storage tank

Index

Accident reporting and records, 3-2, 5-2
Adequate margin of safety, table 7-1
A-weighted day-night average sound level (ADNL), 7-5, table 7-1, table 7-2, table 7-3
Air Pollution Emergency Plans, 6-9
Air Pollution Emissions Inventory, 6-2
Air programs, 6-1
Army Compliance Tracking System (ACTS) Reporting, 13-3
Army Logistics Management College (ALMC), 13-2, 13-6, 13-7
Asbestos, 4-6, Ch.-8, 11-2, 11-6, 11-8, 11-9, 15-6, 15-13, 15-19
Automated Environmental Management Systems, 13-1

Best management practices, 4-5
Base Realignment and Closure (BRAC), 11-2, 11-3, 11-4, 11-6, 11-8, 11-9, 11-10, 11-11, 11-12, 11-13, 11-15, 15-6
Certification (training), 2-5, 6-6, 6-11, 12-3, 15-17
C-weighted day-night average sound level (CDNL), 7-5
Chemical warfare, 5-2, 5-5
Chemical warfare agents, 5-5
Chlorofluorocarbons and halons, 6-11
Civil works, 2-2, 2-3, 2-7, 2-8, 3-1, 3-2, 3-6, 4-2, 4-4, 4-5, 4-6, 4-7, 4-8, 4-9, 5-2, 5-9, 5-10, 5-11, 6-1, 6-2, 6-3, 6-7, 6-8, 6-9, 6-11, 6-12, 6-14, 7-1, 8-1, 8-2, 9-3, 9-4, 10-4, 10-5, 10-6, 10-8, 11-1, 13-1, 15-2, 15-3, 15-5, 15-6, 15-7, 15-8, 15-10, 15-13, 15-16, 15-17
Clean Air Act (CAA), 6-2, 6-3, 6-4, 6-7, 6-10, 6-11, 6-12, 10-2
Clean Water Act (CWA), 2-3, 2-4, 2-7, 4-5, 10-2, 15-16
Community relations, 2-4, 11-3, 11-5, 11-11, 11-14, 11-15
Complaints, 2-7, 7-2, 7-3, 7-4, 7-5
Compliance agreement, 5-11, 15-7, 15-13, 15-16
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 5-11, 11-3, 11-4, 11-6, 11-9, 11-11, 11-14, 11-15, 13-5, 15-4, 15-6, 15-16
Conformity, 6-13
Consent agreement, 15-7
Consent order, 5-11, 11-4, 15-7
Conservation, 2-2, 2-4, 2-8, 12-2, 13-3, 15-13, 15-14
Conventional explosive ordnance operations, 5-4
Corrective action, 5-2, 10-2, 11-4, 11-5, 13-6, 15-8

Day-night average sound level (DNL), 7-5
Defense Environmental Network and Information Exchange (DENIX), 13-2, 13-4, 15-6
Defense Environmental Restoration Account (DERA) Funding, 12-3
Defense Environmental Restoration Program (DERP), 11-2, 11-3, 11-7, 11-8, 11-9, 11-10, 11-11, 11-12, 11-13, 11-15, 13-5
Defense Environmental Security Corporate Information Management (DESCIM), 13-2
Defense Site Environmental Restoration Tracking System (DSERTS), 11-8, 11-9, 11-10, 11-12, 13-5, 13-7
Defense-State Memorandum of Agreement (DSMOA), 11-2, 11-11
Defense and State Memorandum of Agreement/Cooperative Agreement Program (DSMOA/CA), 11-2, 11-11
Disposal facilities, 5-9, 5-10, 11-2
Dredge and fill operations, 2-3
Drinking water, 2-2, 2-3, 2-4, 2-6, 2-7, Table 2-1, Table 2-2, 11-14, 15-19

ECAR, 13-6, 15-8
ECAS software, 13-6, 15-8
EDMSC, 13-2, 13-3
Emergency Planning and Community Right-to-Know Act (EPCRA), 4-3, 4-7, 4-8, 4-9, 10-2, 10-3
Emergency response, 3-4, 4-4, 5-4, 11-14, 15-13
Enforcement Action (ENF), 5-11, 13-3, 14-15, 15-7, 15-8, 15-13, 15-16
Environmental
 Agreements, 15-7, 15-16

Awards, 15-9
 Awareness, 10-2, 15-13
 Awareness Resource Center, 4-9, 15-13
 Compliance, 2-2, 2-3, 2-4, 2-8, 3-4, 3-6, 4-5, 4-6, 4-7, 4-9, 5-2, 5-4, 5-9, 5-10, 5-11, 6-1, 6-3, 6-4, 6-5, 6-8, 6-13, 6-14, 8-2, 9-4, 10-2, 10-5, 10-6, 11-2, 11-4, 11-6, 11-8, 11-9, 11-10, 11-12, 12-2, 12-4, 13-2, 13-3, 13-6, 14-2, 14-5, 15-5, 15-6, 15-7, 15-8, 15-11, 15-13, 15-16, 15-17, 15-19
 Compliance assessments, 13-6, 15-8
 Compliance Assessment System (ECAS), 13-6, 13-7, 15-8
 Compliance officers, 15-17
 Condition of Property (ECOP), 15-6
 Program Requirements (EPR) Report (Formerly RCS 1383), 2-2, 2-3, 4-5, 4-8, 5-2, 5-10, 5-11, 10-5, 11-6, 11-9, 13-2, 13-3, 13-7, 14-2, 15-8, 15-13
 Quality Control Committee (EQCC), 4-2, 7-2, 7-3, 7-4, 10-2, 15-8, 15-10, 15-13
 Quality Report (EQR) (Formerly ACTS), 13-3, 13-7, 15-16
 Restoration, 5-2, 5-12, 11-2, 11-3, 11-4, 11-5, 11-6, 11-8, 11-9, 11-10, 11-11, 11-12, 11-13, 11-15, 11-16, 12-2, 12-3, 13-5, 14-3, 15-4, 15-6, 15-13
 Training, 15-8, 15-13, 15-17
 Training Support Center, 4-9
Existing source (air emissions), 6-7
Federal Implementation Plan (FIP), 6-13
Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 15-16
Final Government Standards (FGS), 2-5, 5-2, 14-2, 15-8
Finding of Suitability to Lease (FOSL), 11-6, 11-12, 15-6
Finding of Suitability to Transfer (FOST), 11-6, 11-12, 15-6
Formerly Used Defense Sites (FUDS), 11-2, 11-3, 11-4, 11-7, 11-8, 11-9, 11-10, 11-11, 11-12, 11-13, 11-14, 11-15, 11-16
Freedom of Information Act (FOIA), 13-6, 15-8
Funding solid and hazardous waste disposal, 5-10
Hazardous air pollutants (HAPs), 6-7
Hazardous
 materials, 4-2, 4-7, 5-2, 10-2, 10-3, 15-6, 15-8, 15-11, 15-17
 Materials management, ch. 4
 Substances, 2-2, 2-3, 3-2, 3-3, 3-4, 4-2, 4-8, 10-1, 11-5, 11-9, 11-11, 15-4, 15-6, 15-16
Health risk, 9-3, 11-9
Installation
 Commanders (ICs), 2-2, 2-3, 3-3, 4-2, 4-4, 5-2, 5-11, 6-2, 6-4, 6-10, 11-3, 11-5, 11-6, 11-9, 11-11, 11-13, 11-14, 11-15, 11-16, 13-5, 13-6, 15-5, 15-6, 15-7, 15-8, 15-10, 15-13, 15-17
 Corrective Action Plans (ICAP), 13-6, 15-8
 Restoration Program (IRP), 11-2, 11-3, 11-4, 11-5, 11-6, 11-8, 11-9, 11-10, 11-11, 11-12, 11-13, 11-15, 11-16, 15-19
 Status Report (ISR) Environment, 13-2, 13-7, 15-8
Integrated Solid Waste Management Plan, 5-9, 10-3
Joint Land Use Study, 7-3
Judge Advocate General (TJAG), 5-11, 13-3, 15-16
Land use, 7-2, 7-3, 7-5, table 7-4, 10-2, 11-14, 11-15, 15-6
Land use planning, 7-3, 7-5, table 7-1
Lead-based paint (LBP), 4-6, 5-11, 11-2, 11-6, 11-8, 11-9, 15-6
Lead hazard management, 4-6
Lowest Achievable Emission Rate (LAER), 6-3
Major source, HAP, definition, 6-7
Maximum achievable control technology (MACT), 6-7
Medical, dental, and veterinary supplies and health care facility, 5-7
Military construction, Army (MCA), 15-11
Mixed waste, 5-2, 5-12
Montreal Protocol, 6-11, 15-20

National Ambient Air Quality Standards (NAAQS), 6-3
National Emissions Standards for Hazardous Air Pollutants (NESHAPs), 6-7
National Environmental Policy Act (NEPA), 5-2, 7-5, 10-4, 11-6, 11-9, 11-10, 11-15, 15-2, 15-11
National Pollutant Discharge Elimination System (NPDES), 2-2, 2-3, 2-7, 4-5
National Priority List (NPL), 11-2, 11-3, 11-4, 11-11, 11-12, 11-13, 11-15, 13-5, 15-6
Natural Resource Damage Assessment (NRDA), 15-4
Natural resources management, 15-3
New Source Performance Standards (NSPS), 6-3
New Source Review (NSR), 6-3
Noise, 7-1, 7-2, 7-3, 7-4, 7-5
Nonattainment area, 6-2, 6-3, 6-10, 6-13, 10-2
Notice of violation (NOV), table 4-1, 7-5, 11-4, 14-5
Occupational Safety and Health Administration (OSHA), 5-2, 15-8, 15-13
Outside the continental United States (OCONUS), 2-5, 5-10, 11-1, 13-6, 14-1, 14-2, 14-3, 14-5, 15-8
Office of the Directorate of Environmental Programs (ODEP), 4-7, 4-9, 6-14, 10-5, 10-6, 11-9, 11-13, 11-14, 12-5, 13-3, 14-4, 15-8, 15-16
Oil and hazardous substances spills, 3-1, 3-2, 3-4
Open burning, 6-8
Open detonation, 6-8
Operating permits, 6-3, 6-4, 6-5, 11-4
Outgrant, 15-6
Ozone depleting substances (ODS), 6-11, 6-14, 10-2
Part 70 Permit, 6-4
Permits
 Air, 6-4, 6-5, 6-8
 Construction, 6-3
 Dredge and fill, 2-3
 Hazardous waste, 5-2
 NPDES, 2-2, 2-3, 2-7
 Operating, 6-3, 6-4, 6-5
 RCRA, 5-2, 6-8, 11-4
 Title V, 6-4
 Wetlands, 2-3
Pest Management Program, 13-3, 15-20
Pesticides, 5-6
Petroleum, oils, and lubricants (POLs), 3-3, 4-5
Pollution prevention, 2-3, 2-4, 5-9, 6-11, 10-1, 10-2, 15-9
 Coordinator, 10-2
 Definition for NEPA, 10-4
 Goals, 10-2
 In planning and decisionmaking, 10-4
 Opportunity assessments, 10-2
 Plan, 10-2, 10-3
 Reporting, 10-3, 10-5
Polychlorinated biphenyls (PCBs), 4-4, 11-6, 11-9, 15-6
Prevention of Significant Deterioration (PSD), 6-3
Preventive medicine, 2-3, 2-4, 3-4, 4-6, 15-13, 15-19
Public participation, 11-3, 11-15, 15-6
Quality Control Committee. See Environmental Quality Control Committee (EQCC)
Radiological, 2-2, 3-5, 5-2, 5-12, 11-6, 11-9, 15-11
Radon, 9-1, 9-2, 9-3, 9-4, 11-6, 15-6
Resource Conservation and Recovery Act (RCRA), 2-3, 3-3, 4-5, 4-6, 4-7, 5-2, 5-4, 5-9, 5-11, 6-8, 10-2, 10-3, 11-4, 11-5, 11-9, 15-6, 15-13, 15-16
 Hotline, 4-7
Restoration Advisory Board, 11-3, 11-6, 11-12, 11-15, 15-6

Real property, 9-3, 11-1, 11-6, 11-9, 11-11, 15-6
Real property acquisition, outgrant and disposal transactions, 15-6
Recycling, 2-2, 4-2, 5-2, 5-4, 5-9, 5-10, 6-6, 6-11, 10-1, 10-3
Regulatory inspections, 2-7
Relative Risk Site Evaluations (RRSEs), 11-8, 11-9, 11-10
Reportable quantity, 3-2, 4-4, 13-3
Reporting an oil or hazardous substance spill, 3-2, 4-4, 13-3
Research and development (R&D), 5-2, 10-2, 10-5
Risk Management Plan, 6-7

Safe Drinking Water Act (SDWA), 2-2, 2-4, 2-7, 2-8
Sensitive land uses, 7-2, 7-5
Safety and occupational health (SOH), 3-3, 9-3, 15-13, 15-16
Solid waste, 4-4, 5-2, 5-4, 5-9, 5-10, 6-6, 10-2, 10-3
Solid waste management, 5-9, 10-3
Source reduction, 4-2, 5-9, 10-3, 10-4
Spill Prevention, Control, and Countermeasures Plan (SPCCP), 3-2, 3-3, 3-4, 3-6, 11-14
Spill Contingency Plan (SCP), 3-2
Spill reporting, 3-2
State Implementation Plan (SIP), 6-3, 6-13
Superfund Amendments and Reauthorization Act (SARA) of 1986, 5-11, 11-15, 13-5
Surgeon General, 2-2

Tank management, 4-5
Technical assistance, 2-8, 3-6, 4-7, 4-9, 6-14, 7-6, 8-2, 9-4, 10-6, 13-2, 13-3, 13-5, 13-6, 13-7
Technical review, 11-3, 11-12
Title VI, Clean Air Act, 6-4, 6-11
Toxic Substances Control Act (TSCA), 4-6, 15-16
Training, environmental (by topic),
 Drinking water plant operators, 2-5
 Environmental Awareness Resource Center (EARC), 4-9, 15-13
 Environmental Compliance Assessment System (ECAS), 13-6
 Environmental compliance officers, 15-17
 Environmental Program Requirements (EPR) software, 13-2
 Environmental Quality Report, 13-3
 EPCRA, 4-8
 Hazardous waste, 5-2, 15-13
 ISR Environment, 13-7
 ITAM environmental awareness products, 15-13
 Lead hazard management, 4-6
 Ozone depleting substances (ODS), 6-11
 Plans, 15-13
 Pollution prevention, 10-2, 10-3
 Polychlorinated biphenyls (PCBs), 4-4
 Schools, 15-13
 Storage tank systems, 4-5
Treatment, storage, and disposal facilities (TSDF), 3-3, 5-2, 5-13
Trip Reduction Plans, 6-12

Underground injection control (UIC), 2-2
Underground storage tank (UST), 4-5, 11-2, 11-9, 13-3
Unexploded ordnance (UXO), 5-4, 11-2, 11-6, 11-8, 11-9, 11-10, 15-6, 15-11
U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), 2-3, 2-7, 2-8, 4-7, 4-8, 4-9, 5-7, 5-9, 6-2, 6-3, 6-14, 7-6, 8-2, 9-4, 10-6, 11-11, 11-13, 15-19
U.S. Army Environmental Center (USAEC), 2-2, 2-3, 2-7, 2-8, 3-3, 3-4, 3-6, 4-2, 4-5, 4-7, 4-8, 4-9, 5-2, 6-14, 10-3, 10-5, 10-6, 11-3, 11-10, 11-11, 11-12, 11-13, 11-14, 11-16, 13-1, 13-2, 13-3, 13-4, 13-5, 13-6, 13-7, 15-8, 15-9, 15-11, 15-13, 15-16, 15-18

U.S. Environmental Protection Agency (EPA), 2-2, 2-3, 2-5, 2-8, 3-2, 3-3, 3-4, 4-2, 4-4, 4-7, 4-8, 5-2, 5-4, 5-9, 5-11, 6-4, 6-6, 6-7, 6-11, 6-14, 7-5, 10-2, 10-3, 11-2, 11-3, 11-4, 11-6, 11-11, 11-14, 11-15, 13-4, 15-6, 15-7, 15-8, 15-13

Vehicle Inspection and Maintenance Programs, 6-10

Waste minimization, 5-3, 10-3

Water Resources Management Program, Ch. 2

Wellhead protection, 2-2

UNCLASSIFIED

PIN 000176-000

USAPA

ELECTRONIC PUBLISHING SYSTEM

OneCol FORMATTER .WIN32 Version 171

PIN: 000176-000

DATE: 02- 8-02

TIME: 13:25:08

PAGES SET: 163

DATA FILE: C:\wincomp\p200-1.fil

DOCUMENT: DA PAM 200-1

DOC STATUS: NEW PUBLICATION